NAVY TRAINING SYSTEM PLAN

FOR THE

CV/CVN AIRCRAFT LAUNCH

AND RECOVERY EQUIPMENT

N88-NTSP-A-50-8509D/P

JUNE 2002

CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT

EXECUTIVE SUMMARY

This Navy Training System Plan (NTSP) has been developed to identify the life cycle manpower, personnel, and training requirements associated with Aircraft Carrier (CV) and Nuclear Aircraft Carrier (CVN) Aircraft Launch and Recovery Equipment (ALRE). The ALRE addressed in this NTSP include the C 13 Catapult, Mark 7 Jet Blast Deflector (JBD), and the Mark 7 Arresting System. All three systems are in the Operations and Support Phase of the Defense Acquisition System. The Navy Support Date for these systems has been achieved.

The C 13 Catapult is designed to launch aircraft from CV and CVN flight decks. The Mark 7 JBD is used aboard CV and CVN flight decks to protect personnel, equipment, and other aircraft from the jet blast created by aircraft in the process of being launched from a catapult. The Mark 7 Arresting Gear is used aboard CV and CVN flight decks to assist aircraft equipped with tail hooks to land in a much shorter distance than would normally be required.

The C 13 Catapult and Mark 7 JBD are operated by Aviation Boatswain's Mate (Equipment) (ABE) personnel with Navy Enlisted Classification (NEC) 7004, *C 13 Mod 1 Catapult Operator*. The Mark 7 Arresting Gear is operated by ABE personnel with NEC 7005, *Mark 7 Arresting Gear Operator*. All shipboard ALRE operators are assigned to the Air Department, V-2 Division.

Organizational and intermediate level maintenance of shipboard ALRE is performed by ABE and Electrician's Mate (EM) personnel assigned to the Air Department, V-2 Division. They are under the supervision of ABEs with NEC 7006, *Aircraft Launch and Recovery Equipment Maintenance Technician*, and EMs with NEC 4672, *Steam Catapult Electrician*. Shipyard personnel typically perform depot maintenance during overhaul periods. Between shipyard periods, Voyage Repair Teams provided by the shipyard are available to perform emergency depot level maintenance and other major repairs beyond the capability of the ship.

Current CV and CVN manning is sufficient to operate and maintain the ALRE systems addressed in this NTSP. No change in current manpower requirements is anticipated.

All initial training associated with the systems addressed in this NTSP has been completed. Follow-on training has been established at Naval Air Technical Training Center Detachment, Lakehurst, New Jersey; Naval Air Maintenance Training Unit (NAMTRAU) Norfolk, Virginia; and NAMTRAU North Island, California.

CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT

TABLE OF CONTENTS

CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT

LIST OF ACRONYMS

ABE	Aviation Boatswain's Mate (Equipment)
ACDU	Active Duty
ADMACS	Aviation Data Management and Control System
ALRCS	Advanced Launch and Recovery Control System
ALRE	Aircraft Launch and Recovery Equipment
ALREMP	Aircraft Launch and Recovery Equipment Maintenance Program
AOB	Average Onboard
ATIR	Annual Training Input Requirement
AZ	Aviation Maintenance Administrationman
CFY	Current Fiscal Year
CIN	Course Identification Number
CINCLANTFLT	Commander in Chief Atlantic Fleet
CINCPACFLT	Commander in Chief Pacific Fleet
CM	Corrective Maintenance
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
COMNAVAIRLANT	Commander Naval Air Force Atlantic
CROV	Constant Run Out Valve
CV	Aircraft Carrier
CVN	Nuclear Aircraft Carrier
DAS	Defense Acquisition System
DT	Developmental Test
EM	Electrician's Mate
FMS	Foreign Military Sales
FY	Fiscal Year
GFE	Government Furnished Equipment
IPB	Illustrated Parts Breakdown
ISIS	Integrated Shipboard Information System
JBD	Jet Blast Deflector

CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT

LSO	Landing Signal Officer
MRC	Maintenance Requirements Cards
NA	Not Applicable
NAMP	Naval Aviation Maintenance Program
NAMTRAU	Naval Air Maintenance Training Unit
NAS	Naval Air Station
NATEC	Naval Air Technical Data and Engineering Service Command
NATTC	Naval Air Technical Training Center
NAVAIR	Naval Air Systems Command
NAVAIRSYSCOM	Naval Air Systems Command
NAVEDTRA	Naval Education and Training
NAVPERSCOM	Navel Personnel Command
NAVSEASYSCOM	Naval Sea Systems Command
NAWCAD	Naval Air Warfare Center Aircraft Division
NAWCADLKE	Naval Air Warfare Center Aircraft Division Lakehurst
NEC	Navy Enlisted Classification
NS	Naval Station
NSA	National Security Agency
NSD	Navy Support Date
NTSP	Navy Training System Plan
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPO	OPNAV Principal Official
OT	Operational Test
PDA	Principal Development Activity
PFY	Prior Fiscal Year
PM	Preventive Maintenance
PMA	Program Manager, Air
PNEC	Primary Navy Enlisted Classification
PQS	Personnel Qualification Standards
PSICP	Program Support Inventory Control Point
RFOU	Ready For Operational Use
RFT	Ready For Training
SNEC	Secondary Navy Enlisted Classification

TD	Training Device
TSA	Training Support Activity
TTE	Technical Training Equipment

CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT

PREFACE

This Proposed Navy Training System Plan (NTSP) for the Aircraft Carrier (CV) and Nuclear Aircraft Carrier (CVN) Aircraft Launch and Recovery Equipment (ALRE) updates the Draft NTSP, A-50-8509D/D, dated April 2002, complying with guidelines set forth in the Navy Training Requirements Documentation Manual, Office of the Chief of Naval Operations (OPNAV) Publication P-751-1-9-97.

Comments submitted by Commander, Naval Air Force, U.S. Pacific Fleet are included in this NTSP. These comments serve to clarify and correct several items.

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

1. Nomenclature-Title-Acronym. CV/CVN Aircraft Launch and Recovery Equipment (ALRE)

2. Program Element. Not Applicable (NA)

B. SECURITY CLASSIFICATION

1. System Characteristics ..... Unclassified
2. Capabilities ..... Unclassified
3. Functions..... Unclassified

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor..... CNO (N78)

OPO Resource Sponsor ..... CNO (N78)

Developing Agency..... NAVAIR (PMA251)

Training Agency ..... CINCLANTFLT
CINCPACFLT
CNET

Training Support Agency..... NAVAIR (PMA205)

Manpower and Personnel Mission Sponsor ..... CNO (N12)
NAVPERSCOM (PERS-4, PERS-404)

Director of Naval Training..... CNO (N79)

D. SYSTEM DESCRIPTION

1. Operational Uses

a. C 13 Catapult. The C 13 Mod 0, Mod 1, and Mod 2 Catapults, hereafter referred to as the C 13 Catapult unless addressing a specific Mod, is designed to launch aircraft from CV and CVN flight decks.

b. Mark 7 Jet Blast Deflector. The Mark 7 Mod 0, Mod 1, and Mod 2 Jet Blast Deflectors (JBD), hereafter referred to as the Mark 7 JBD unless addressing a specific Mod, are used aboard CV and CVN flight decks to protect personnel, equipment, and other aircraft from the jet blast created by aircraft in the process of being launched from a catapult.

c. Mark 7 Arresting System. The Mark 7 Mod 2, Mod 3, Mod 3+, and Mod 4 Arresting Gear, hereafter referred to as the Mark 7 Arresting Gear unless addressing a specific Mod, is used aboard CV and CVN flight decks to assist aircraft equipped with tail hooks to land in a much shorter distance than would normally be required.

2. Foreign Military Sales. Foreign Military Sales (FMS) of ALRE have been made to the French Navy. For specific details, contact the Program Manager, Air (PMA) 251.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST

1. C 13 Catapult. All Developmental Tests (DT) of the C 13 Catapult have been completed. Operational Tests (OT) of the C 13 Catapults aboard new construction CVNs is conducted during sea trials. Sea trials for CVN 76 USS Ronald Reagan are scheduled for Fiscal Year (FY) 03.

2. Mark 7 Jet Blast Deflector. All DTs of the Mark 7 JBD have been completed. OTs of the Mark 7 JBD aboard new construction CVNs is conducted during sea trials.

3. Mark 7 Arresting System. All DTs of the Mark 7 Arresting Gear have been completed. OTs of the C 13 Mark 7 Arresting Gear aboard new construction CVNs is conducted during sea trials. All required testing to support Mark 7 Arresting Gear Service Changes 427 and 428 has been completed. Testing to support Mark 7 Arresting Gear Service Change 437 is scheduled to begin at Naval Air Warfare Center Aircraft Division Lakehurst (NAWCADLKE), New Jersey, in FY02. When more specific information concerning Service Change 437 testing becomes available it will be included in updates to this NTSP.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED

1. C 13 Catapult. The C-13 Catapult replaced the Hydraulic Catapult.

2. Mark 7 Jet Blast Deflector. The Mark 7 JBD replaced the Mark 4 JBD.

3. Mark 7 Arresting System. The Mark 7 Mod 2 replaced the Mark 7 Mod 1 Arresting System.

a. Mark 7 Arresting Gear Service Change 427. The purpose of this service change is to remove all Mark 7 Mod 3 arresting engine sheave assemblies utilizing the ball-thrust bearing, all arresting engine sheave assemblies containing a bonded phenolic spacer, and all loose phenolic spacers within the arresting engine. These items will be replaced with sheave assemblies

that employ cylindrical roller-thrust bearings that negate the use of all phenolic spacers within the arresting gear engine. Additionally, the automatic lubrication system, which will deliver a new type of grease, will be modified to reduce the amount of grease required to support the operation of the bearing assemblies. Mark 7 Arresting Gear Service Change 427 is in the Production and Deployment phase of the Defense Acquisition System (DAS).

b. Mark 7 Arresting Gear Service Change 428. The purpose of this service change is to replace the present cross-deck pendants and purchase cables with higher-strength cross-deck pendants and purchase cables, thereby increasing the maximum service life limits and expanding the operational capability of the Mark 7 Mod 3 Arresting Gear to meet future aircraft recovery requirements. Mark 7 Arresting Gear Service Change 428 is in the Production and Deployment phase of the DAS.

Note: When both Service Change 427 and 428 have been incorporated into Mark 7 Mod 3 Arresting Gear installations, the installations will then be identified as Mark 7 Mod 3+.

c. Mark 7 Arresting Gear Service Change 437. The purpose of this service change is to replace the present Constant Run Out Valve (CROV) and Retract Valve as well as their existing control and actuation systems with an improved CROV system that features non-mechanical linkage as the primary means of valve actuation. It will also provide for remote control and monitoring of the arresting gear in the primary operating mode. The control functions will consist of an operator selection of programmed performance based on the known characteristics of the aircraft to be arrested, and a hands-off, closed-loop control during the arrestment that compensates for unforeseen variables to prevent long run-outs and provide a "fail-soft" mode. The final control stage will revert to operator control of the retract phase, and will allow the operator to have proportional control of the retract valve. Mark 7 Arresting Gear Change 437 is in the System Development and Demonstration phase of the DAS.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description

a. C 13 Catapult. The C 13 Mod 0, Mod 1, and Mod 2 Catapults are steam powered, direct drive, flush deck type catapults that consist of two rows of slotted cylinders side-by-side in a trough under the flight deck. Pistons within these cylinders connect to the shuttle that tows the aircraft. Major catapult systems include:

(1) Steam System. The Steam System delivers the steam required to operate the catapult from the ship's engineering spaces. The steam system portion of the C 13 Catapult is under the technical cognizance of the Naval Sea Systems Command (NAVSEASYSCOM) and is operated and maintained by ships' engineering department personnel.

(2) Launch Engine System. The Launch Engine System consists of most of the major components that are used in applying steam to the launch engine pistons during the launch sequence and stopping the launch pistons at the completion of the launch.

(3) Retraction Engine and Drive System. The Retraction Engine and Drive System are used to return the launch pistons and the shuttle to the ready position after each launch.

(4) Hydraulic System. The Hydraulic System supplies hydraulic fluid for the operation of the hydraulic components of the catapult.

(5) Lubrication System. The Lubrication System provides a means of lubricating the launch engine cylinders and sealing strips prior to firing the catapult and also provides lubrication at other times by way of manual lubrication pushbuttons on the monitor console and charging panel.

(6) Bridle Tensioning System. The Bridle Tensioning System provides a means of tightly connecting the aircraft to be launched to the catapult shuttle.

(7) Control System. The Control System consists of the panels, lights, and switches that are used to operate the catapult throughout the various sequential operational phases.

b. Mark 7 Jet Blast Deflector. The Mark 7 Mod 0, Mod 1, and Mod 2 JBDs consist of a series of water-cooled panels that are mounted flush with the flight deck. The panels are raised and lowered by hydraulic cylinders connected to mechanical operating gear. Seawater supplied from the ship's firemain is continuously circulated through the modules of each panel assembly to prevent overheating. The JBD is normally operated from either a deckedge using the deckedge control panel or from the flight deck using a portable chest pack control assembly. Major components of the Mark 7 JBD include the operating gear assembly, water-cooled panel assembly, and electrical control assembly along with associated water, hydraulic, and electrical infrastructure.

(1) Operating Gear Assembly. The Operating Gear Assembly provides the means of physically raising and lowering the JBD panels. Two hydraulic cylinders are connected to a trunnion shaft by means of a crank assembly. Movement of the hydraulic cylinder piston rod rotates the trunnion shaft. Rotation of the trunnion shaft extends or retracts the linkage to raise or lower the JBD panels. Removable panel supports can be attached to the operating gear and flight deck to lock panels in the raised position for maintenance or if access to the area beneath the panels is required.

(2) Water-Cooled Panel Assembly. Pairs of water-cooled panels are connected to sets of operating gear. The panel assemblies can be raised independently or simultaneously with other panels within the same installation. By connecting a pair of panels to a

set of operation gear, one cylinder can raise or lower a pair of panels in the event of a failure to the other cylinder.

(3) Electrical Control Assembly. All JBD assemblies are controlled by means of individual control panels. Each control panel and chest pack has its own electrical installation and each is operated independently of the other. An auxiliary control panel and transfer switch located below decks is provided for emergency operating purposes. The auxiliary control panel is identical to the deckedge panel. The deckedge and auxiliary control panels are provided with a cover and padlock to protect the panels and prevent operation by unauthorized personnel. Transfer switches direct electrical power from the power source to the deckedge control panel, auxiliary control panel, or the chest pack as applicable.

c. Mark 7 Arresting System. The Mark 7 Mod 2, Mod 3, and Mod 4 arresting systems operate in the following manner. The tail hook of an incoming aircraft engages a deck pendant. Deck pendants are single wire rope cables that span the flight deck. The deck pendants are tensioned across and suspended two-to-five-inches above the flight deck by leaf spring wire supports. The engagement enables the force of the aircraft's forward motion to be transferred to a purchase cable. The purchase cable, a length of cable attached to a set of moveable and a set of fixed sheaves on the arresting engine, forces the crosshead toward the fixed sheaves forcing fluid from the arresting cylinder to the accumulator and anchor dampers. The flow of the moving fluid is metered through the control valve to the accumulator. The metered flow of the fluid through the control valve is a pre-determined factor that controls the pressure in the cylinder and thus provides a restraining force on the cable system, absorbing the force of the engaged aircraft. At the completion of the arrestment, the aircraft's tail hook is disengaged from the deck pendant and the deck pendant is returned to its normal ready position. This is accomplished by operating the retracting valve, which forces fluid to flow from the accumulator back into the engine cylinder, moving the crosshead away from the fixed sheaves returning to its ready position.

Arrestment by deck pendant represents the normal method of arresting aircraft. During emergencies, an arrestment barricade is used. The barricade consists of one-time-use webbing stretched across the flight deck between the port and starboard barricade stanchions. During a barricade arrestment, the wings of the incoming aircraft engage the barricade webbing which transmits the arresting force to the barricade engine in a similar manner as the deck pendant does via the purchase cable system during a normal arrestment.

2. Physical Description. Figure I-1 depicts the typical flight deck locations of the ALRE addressed in this NTSP.

a. C 13 Catapult. Due to the complex design and large quantity of components that make-up a C 13 Catapult, no attempt has been made to include a detailed physical description in this NTSP. An in-depth physical description of all components associated with the C 13 Catapult can be found in the C 13 Operation and Maintenance Manuals, NAVAIR 51-15ABB-4.1, 4.2, and 4.3.

Typical ALRE Flight Deck Locations

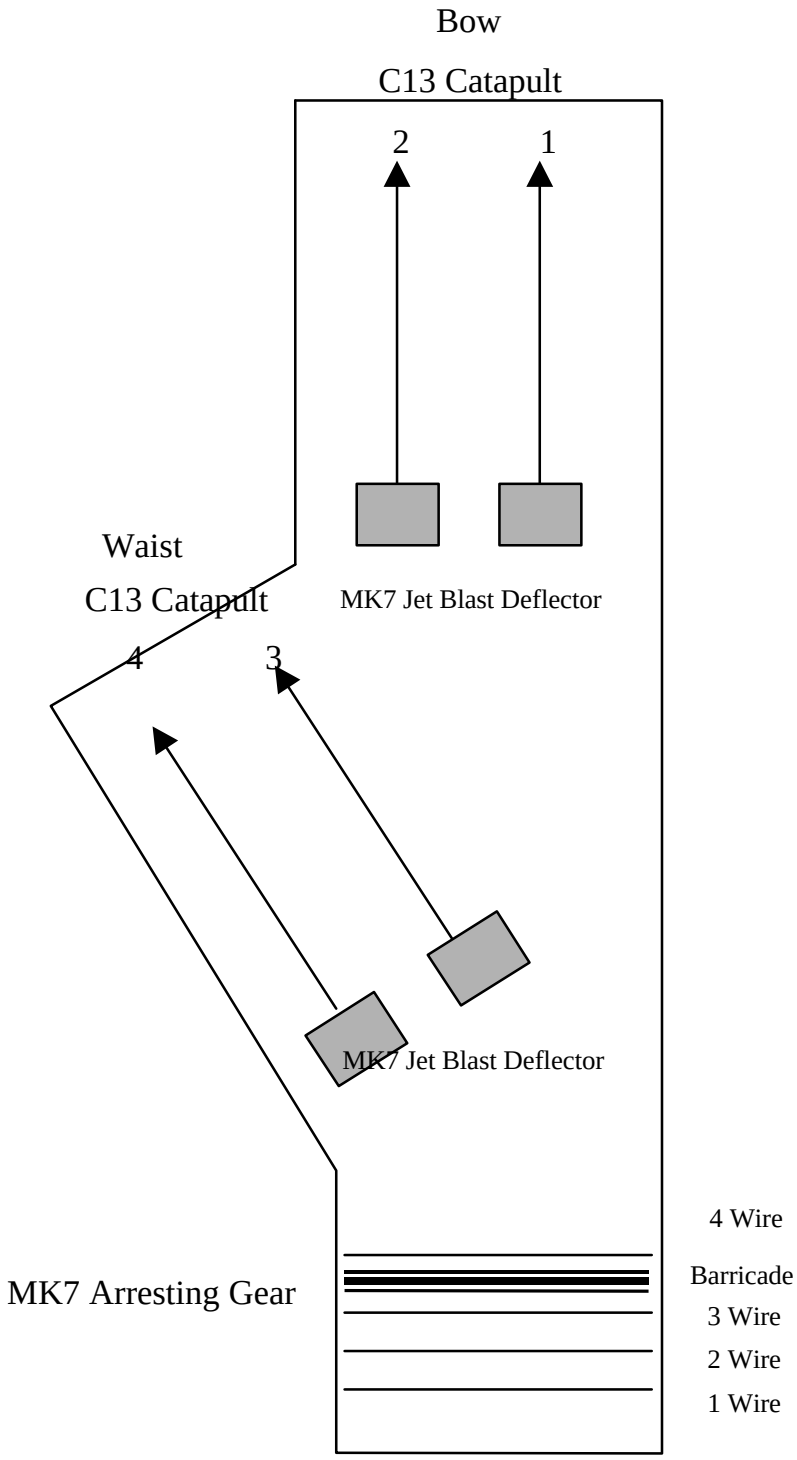

Figure I-1: ALRE Typical Flight Deck Locations

(1) Steam System. The catapult steam system consists of the steam accumulator, accumulator fill and blow-down valves, trough warm-up system, steam smothering system, and associated valves and piping.

(2) Launch Engine System. The major components of the Launch Engine System are the launch valve assembly, launch valve hydraulic lock valve panel, launch valve control valve, exhaust valve hydraulic lock valve panel, keeper valve, launch engine cylinders, cylinder covers, sealing strip tensioner installation, sealing strip anchor and guide, launch engine pistons, water brake installation, steam cutoff switch, water brake piping and pressure switch installation, and trough system installation.

(3) Retraction Engine and Drive System. The major components that comprise the Retraction Engine and Drive System are the drum assembly, hydraulic motor, screw and traverse carriage installation, retraction engine dump valve, vent valve panel, retraction engine manifold, cable tensioner assembly, sheaves, cables, and grab.

(4) Hydraulic System. The Hydraulic System consists of a main hydraulic accumulator, three main hydraulic pumps (each driven by an electric motor), a booster pump, suction line filter, a 90-gallon auxiliary tank, and associated valves, switches, and piping. The auxiliary tank, hydraulic pumps, and the circulating booster pump are under the cognizance of NAVSEASYSCOM and are operated and maintained by V-2 Division personnel.

(5) Lubrication System. The major components of the Lubrication System include a lubrication pump and motor, a lubrication tank of approximately 200-gallon capacity, an air-operated lubrication control valve, an air solenoid valve, and between 44 and 52 metering pumps.

(6) Bridle Tensioning System. The major components of the Bridle Tensioning System include a bridle tensioner control valve, a bridle tensioner cylinder mounted directly below the nose gear launch track and in line with the aft trough covers, and a pressure regulator.

(7) Control System. Major components comprising the Control System are the catapult officer control console, monitor control console, deckedge control panel, and central charging system.

C 13 CATAPULT CONFIGURATION MATRIX

ACTIVITY	C 13 CATAPULT LOCATION			
	CATAPULT 1	CATAPULT 2	CATAPULT 3	CATAPULT 4
CV 63 USS Kitty Hawk	Mod 0	Mod 0	Mod 0	Mod 0
CV 64 USS Constellation	Mod 0	Mod 0	Mod 0	Mod 0
CVN 65 USS Enterprise	Mod 0	Mod 0	Mod 0	Mod 0

ACTIVITY	C 13 CATAPULT LOCATION			
	CATAPULT 1	CATAPULT 2	CATAPULT 3	CATAPULT 4
CV 67 USS John F. Kennedy	Mod 1	Mod 1	Mod 1	Mod 1
CVN 68 USS Nimitz	Mod 1	Mod 1	Mod 1	Mod 1
CVN 69 USS Dwight D. Eisenhower	Mod 1	Mod 1	Mod 1	Mod 1
CVN 70 USS Carl Vinson	Mod 1	Mod 1	Mod 1	Mod 1
CVN 71 USS Theodore Roosevelt	Mod 1	Mod 1	Mod 1	Mod 1
CVN 72 USS Abraham Lincoln	Mod 2	Mod 2	Mod 2	Mod 2
CVN 73 USS George Washington	Mod 2	Mod 2	Mod 2	Mod 2
CVN 74 USS John C. Stennis	Mod 2	Mod 2	Mod 2	Mod 2
CVN 75 USS Harry S. Truman	Mod 2	Mod 2	Mod 2	Mod 2
CVN 76 USS Ronald Reagan	Mod 2	Mod 2	Mod 2	Mod 2

b. Mark 7 Jet Blast Deflector

(1) Operating Gear Assembly. A set of operating gears consists of two hydraulic cylinders, three bearing blocks, one trunnion shaft, two crank assemblies, and four linkage assemblies. Each linkage assembly consists of an arm, strut, and eye. The linkage for two JBD panels is connected to a single trunnion shaft. The trunion shaft is mounted and supported by the three bearing block assemblies. Magnets attached to the linkage arm and eye assemblies actuate limit switches mounted on brackets on the side of the operating gear deck cutouts to indicate the position of the panel assemblies.

(2) Water-Cooled Panel Assembly. A Water-Cooled Panel Assembly is a reinforced, ribbed-based structure containing water inlet and outlet piping. Each panel assembly contains 14 tube assemblies, seven removable module assemblies, and attached hinge and lift fittings. The Mark 7 Mod 0 and Mod 2 JBDs are comprised of six Water-Cooled Panel Assemblies with three sets of operating gear, while the Mark 7 Mod 1 JBD has four panels and two sets of operating gear. The Mark 7 Mod 2 JBD contains two additional side-plate cooling panels.

(3) Electrical Control Assembly. Major components of the Electrical Control Assembly include the deckedge and auxiliary control panels, chest pack portable control assembly, deckedge and chest pack transfer switch, and cutout switch.

(a) Deckedge and Auxiliary Control Panels. The Deckedge and Auxiliary Control Panels are identical in design except for the nameplate. The Mark 7 Mod 0 and Mod 2 control panels contain nine switches while the Mark 7 Mod 1 control panel contains seven

switches. Each panel also contains four fuse lights, a power-on light switch, two indicator lights, cooling water and hydraulic fluid gage shutoff valves, and a cooling water and hydraulic pressure gage.

(b) Chest Pack Portable Control Assembly. The chest pack for the Mark 7 Mod 0 and the Mod 2 contains three individual raise and lower toggle switches, an "all" raise and lower toggle switch, an emergency cooling water toggle switch, a yellow water indicator light, and red and green indicator lights. Electrical power is provided by an umbilical cable connected to a receptacle on the rear of the chest pack and to another receptacle located in the deck. A chest pack is not used to operate Mark 7 Mod 1 JBDs.

(c) Deckedge and Chest Pack Transfer Switches. The deckedge transfer switch is a rotary switch with a rotary dial. The face is identified with two "deckedge" and two "auxiliary" positions. The only difference between the deckedge transfer switch and the chest pack transfer switch is the dial face. The face of the chest pack transfer switch dial face is identified with two "portable" and two "auxiliary" positions.

(d) Cutout Switch. The Cutout Switch, which provides power to the control panel or the chest pack, is a rotary type switch with a rotary dial. The switch is located near the auxiliary control panel.

(4) Configuration. Current fleet Mark 7 JBD configurations are as follows:

MARK 7 JET BLAST DEFLECTOR CONFIGURATION MATRIX

ACTIVITY	MARK 7 JET BLAST DEFLECTOR LOCATION			
	CATAPULT 1	CATAPULT 2	CATAPULT 3	CATAPULT 4
CV 63 USS Kitty Hawk	Mod 0	Mod 0	Mod 2	Mod 1
CV 64 USS Constellation	Mod 0	Mod 0	Mod 2	Mod 1
CVN 65 USS Enterprise	Mod 0	Mod 0	Mod 0	Mod 1
CV 67 USS John F. Kennedy	Mod 0	Mod 0	Mod 0	Mod 1
CVN 68 USS Nimitz	Mod 2	Mod 2	Mod 2	Mod 1
CVN 69 USS Dwight D. Eisenhower	Mod 0	Mod 0	Mod 0	Mod 1
CVN 70 USS Carl Vinson	Mod 0	Mod 0	Mod 0	Mod 1
CVN 71 USS Theodore Roosevelt	Mod 0	Mod 0	Mod 0	Mod 1
CVN 72 USS Abraham Lincoln	Mod 2	Mod 2	Mod 2	Mod 1
CVN 73 USS George Washington	Mod 0	Mod 0	Mod 0	Mod 1
CVN 74 USS John C. Stennis	Mod 2	Mod 2	Mod 2	Mod 1

ACTIVITY	MARK 7 JET BLAST DEFLECTOR LOCATION			
	CATAPULT 1	CATAPULT 2	CATAPULT 3	CATAPULT 4
CVN 75 USS Harry S. Truman	Mod 0	Mod 0	Mod 0	Mod 1
CVN 76 USS Ronald Reagan	Mod 0	Mod 0	Mod 0	Mod 1

c. Mark 7 Arresting System

(1) Physical Characteristics. The physical characteristics for major components of the Mark 7 Mod 2, Mod 3, and Mod 4 arresting systems are as follows:

MARK 7 ARRESTING SYSTEM PHYSICAL CHARACTERISTICS

SPECIFICATION	MOD 2	MOD 3	MOD 4
Maximum Energy Absorption	38,000,000 foot pounds	47,500,000 foot pounds	47,500,000 foot pounds
Service run out	310 feet	340 feet	340 feet
Cables:			
Deck Pendant Breaking Strength	188,000 pounds	205,000 pounds	205,000 pounds
Purchase Cable Break Strength	195,000 pounds	215,000 pounds	215,000 pounds
Revving Ratio	18 to1	18 to 1	18 to 1
Deck Pendant Diameter	1-3/8 inches	1-7/16 inches	1-7/16 inches
Purchase Cable Diameter	1-7/16 inches	1-7/16 inches	1-7/16 inches
Damper Sheave Crosshead Service Stroke	6 feet 6 ½ inches	10 feet	15 feet
Arresting Engine:			
Length	50 feet	50 feet	50 feet
Weight	37 tons	43 tons	43 tons
Hydraulic Fluid Capacity (Without Cooler)	320 gallons	380 gallons	380 gallons
Hydraulic Fluid Capacity (With Cooler)	500 gallons	560 gallons	560 gallons
Type of coolant	Sea water	Sea water	Sea water

SPECIFICATION	MOD 2	MOD 3	MOD 4
Ram Diameter	18.495 inches	20.000 inches	20.000 inches
Effective Ram Area	268.8 square inches	314.16 square inches	314.16 square inches
Length of Two-Block Stroke	186 inches	195 inches	195 inches
Pendant Engine Service Stroke Length	171 inches	183 inches	183 inches
Barricade Engine Service Stroke Length	150 inches	160 inches	160 inches
Accumulator Working Pressure	400 pounds per square inch	400 pounds per square inch	400 pounds per square inch
Accumulator Maximum Pressure	650 pounds per square inch	650 pounds per square inch	650 pounds per square inch
Length of Deck Pendant Run out	321 feet (to tail hook)	345 feet (to tail hook)	345 feet (to tail hook)
Length of Barrier Run out	359 feet (to nose wheel)	388 feet (to nose wheel)	388 feet (to nose wheel)
Cable Anchor Damper Piston Service Stroke	10 feet	15 feet 8 inches	15 feet 8 inches
Piston Area of Cable Anchor Damper Piston	6.107 square inches	7.85 square inches	7.85 square inches
Barricade Power Pack			
Hydraulic Fluid Capacity	125 gallons	125 gallons	125 gallons
Working Pressure	1,500 pounds per square inch	1,500 pounds per square inch	1,500 pounds per square inch
Pressure Switch Minimum Pressure	1,250 pounds per square inch	1,250 pounds per square inch	1,250 pounds per square inch
Relief Valve Maximum Pressure	1,750 pounds per square inch	1,750 pounds per square inch	1,750 pounds per square inch

(2) Configuration. Current fleet Mark 7 arresting gear configurations are as follows:

MARK 7 ARRESTING GEAR CONFIGURATION MATRIX

ACTIVITY	MARK 7 ARRESTING GEAR LOCATION				
	WIRE 1	WIRE 2	WIRE 3	WIRE 4	BARRICADE
CV 63 USS Kitty Hawk	Mod 3	Mod 3	Mod 3	Mod 3	Mod 2
CV 64 USS Constellation	Mod 3	Mod 3	Mod 3	Mod 3	Mod 2
CVN 65 USS Enterprise	Mod 3	Mod 3	Mod 3	Mod 3	Mod 2
CV 67 USS John F. Kennedy	Mod 3	Mod 3	Mod 3	Mod 3	Mod 3
CVN 68 USS Nimitz	Mod 3+	Mod 3+	Mod 3+	Mod 3+	Mod 3+
CVN 69 USS Dwight D. Eisenhower	Mod 3+	Mod 3+	Mod 3+	Mod 3+	Mod 3+
CVN 70 USS Carl Vinson	Mod 3	Mod 3	Mod 3	Mod 3	Mod 3
CVN 71 USS Theodore Roosevelt	Mod 3	Mod 3	Mod 3	Mod 3	Mod 3
CVN 72 USS Abraham Lincoln	Mod 3	Mod 3	Mod 3	Mod 3	Mod 3
CVN 73 USS George Washington	Mod 3	Mod 3	Mod 3	Mod 3	Mod 3
CVN 74 USS John C. Stennis	Mod 3+	Mod 3+	Mod 3+	Mod 3+	Mod 3+
CVN 75 USS Harry S. Truman	Mod 3	Mod 3	Mod 3	Mod 3	Mod 3
CVN 76 USS Ronald Reagan	Mod 4	Mod 4	Mod 4	NA	Mod 4

3. New Development Introduction. All catapults, JBDs, and arresting gear systems are installed as new equipment during ship construction.

4. Significant Interfaces

a. C 13 Catapult. The C 13 Catapult interfaces with the Aviation Data Management and Control System (ADMACS), Integrated Shipboard Information System (ISIS), Advanced Launch and Recovery Control System (ALRCS), and the ships' steam generating and electrical power distribution systems.

b. Mark 7 Jet Blast Deflector. The Mark 7 JBD interfaces with the ships' fire main and electrical power distribution systems.

c. Mark 7 Arresting System. The Mark 7 Arresting System interfaces with ADMACS, ISIS, ALRCS, and the ships' electrical power distribution system.

5. New Features, Configurations, or Material. NA

H. CONCEPTS

1. Operational Concept. The C 13 Catapult and Mark 7 JBD are operated by Aviation Boatswain's Mate (Equipment) (ABE) personnel with Navy Enlisted Classifications (NEC) 7004, *C 13 Mod 1 Catapult Operator*. ABE personnel with NEC 7005, *Mark-7 Arresting Gear Operator*, operate the Mark 7 Arresting Gear. All shipboard ALRE operators are assigned to the ships' Air Department, V-2 Division. The C 13 Catapult, Mark 7 JBD, and Mark 7 Arresting Gear are manned at all times during Flight Quarters.

2. Maintenance Concept. General direction and guidance regarding the ALRE maintenance concept are provided by the ALREMP, Office of the Chief of Naval Operations Instruction (OPNAVINST) 4790.15. The ALREMP prescribes three levels of maintenance: organizational, intermediate, and depot.

a. Organizational. Organizational level maintenance of shipboard ALRE is performed by ABE and Electrician's Mate (EM) personnel assigned to the Air Department, V-2 Division, under the supervision of ABEs with NEC 7006, *Aircraft Launch and Recovery Maintenance Technician*, and EMs with NEC 4672, *Steam Catapult Electrician*. Organizational maintenance includes both Preventive Maintenance (PM) and Corrective Maintenance (CM).

(1) Preventive Maintenance. PM consists of periodic inspections and servicing in response to a scheduled requirement as prescribed in applicable Maintenance Requirements Cards (MRC). PM actions include corrosion inspections, cleaning, lubricating, adjusting, and calibration.

(2) Corrective Maintenance. CM consists of troubleshooting and removal and replacement of defective components using Peculiar Support Equipment and Common Support Equipment.

b. Intermediate. Aboard CV and CVN ships, the Air Department, V-2 Division, is considered an afloat intermediate maintenance activity for ALRE systems. The same ABE and EM personnel that perform organizational level maintenance on ALRE systems perform intermediate maintenance. Intermediate maintenance consists of inspections, test, modification, repair and replacement of damaged or unserviceable equipment, assemblies, and components, calibration, manufacture of selected parts, and incorporation of service changes within the ships' capability. Carrier and Field Service Unit representatives are available to assist with specific maintenance problems on an as requested basis via the Type Commander. A list of special tools and equipment required to perform intermediate maintenance is included in element IV.A.1.

c. Depot. Depot level maintenance consists of incorporation of major service changes and overhaul. Shipyard personnel normally perform depot maintenance during overhaul periods. Typically, CV and CVN type ships undergo overhaul periods every six to ten years. Voyage Repair Teams provided by the shipyard are available to perform depot level and other major maintenance requirements occurring between shipyard periods.

d. Interim Maintenance. Since the Navy Support Date (NSD) for the ALRE addressed in this NTSP was achieved decades ago, no requirements exist for interim maintenance.

e. Life Cycle Maintenance Plan. Life cycle maintenance of ALRE includes PM and CM as well as long term rework. CV and CVN type ships typically undergo shipyard overhaul every eight to twelve years. Rework of ALRE will be accomplished during these periods.

3. Manning Concept. Manning requirements for CV and CVN Air Department, V-2 Divisions are solely based on watch station requirements. Current manning is at a steady state and will not be affected by the service changes addressed in this NTSP. No new NECs will be required to support the service changes.

a. Proposed Utilization. All shipboard ALRE is manned and fully operational during Flight Quarters. Average utilization is six months per year.

b. Recommended Qualitative and Quantitative Manpower Requirements. The current qualitative and quantitative manpower requirements to support ALRE for a typical Air Department V-2 Division are depicted in the table below. All billets are active duty. Slight variations of billet numbers will occur at individual commands.

RATING	NEC	BILLETS
ABCM	0000	1
ABECS	7004	1
ABECS	7005	1
ABECS	7006	1
ABEC	7004	2
ABEC	7005	2
ABEC	7006	1
ABE1	7004	8
ABE1	7005	4
ABE1	7006	2
ABE2	7004	13
ABE2	7005	7
ABE2	0000	3
ABE3	0000	42
ABEAN	0000	27

RATING	NEC	BILLETS
AN	0000	88
EMC	4672	1
EM1	4672	1
EM2	4672	2
EM3	4672	1
AZ1	0000	1
AZ3	0000	1
AZAN	0000	1

4. Training Concept. The overall objective of the training program is to provide a ready supply of skilled catapult and arresting gear operators and maintenance technicians to the fleet. All initial training associated with the systems addressed in this NTSP has been completed. Follow-on training has been established at Naval Air Technical Training Center (NATTC) Detachment, Lakehurst, New Jersey; Naval Air Maintenance Training Unit (NAMTRAU) Norfolk, Virginia; and NAMTRAU North Island, California.

a. Initial Training. NA

b. Follow-on Training

Title ..... CV Catapult Electrician

CIN C-604-2013

Model Manager ... NATTC DET Lakehurst

Description ..... This course provides training to EM personnel, including:

° Arresting Gear and Deck Accessories
° Catapults
° Electrical Schematics
° General Maintenance and Upkeep
° Safety
° Quality Assurance
° Technical Publications

Upon completion, the student will be able to maintain and repair the catapult and arresting gear electrical systems aboard CV and CVN ships without supervision.

Location ..... NATTC DET Lakehurst

Length	26 days
RFT date	Currently available
Skill identifier	NEC 4672
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	° EM Rating ° E-4 and above ° Ultimate duty assignment to an aircraft carrier

Title	**Aircraft Launch and Recovery Equipment C 13 Catapult Class C1**
CIN	C-604-2014
Model Manager ...	NATTC DET Lakehurst
Description	This course provides training to ABE personnel, including: ° Type C-13 MOD 0 Catapult Operation ° Type C-13 MOD 1 Catapult Operation ° Type C-13 MOD 2 Catapult Operation Upon completion, the student will be able operate Type C-13 series catapults aboard CV and CVN type ships with supervision.
Location	NATTC DET Lakehurst
Length	44 days
RFT date	Currently available
Skill identifier	NEC 7004
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	° ABE Rating ° E-4 through E-9 ° C-604-2012, Aviation Boatswain’s Mate Launch and Recovery Equipment Class A1

Title	**Aircraft Launch and Recovery Equipment Maintenance Technician**
CIN	C-604-2028
Model Manager ...	NATTC DET Lakehurst
Description	This course provides training to ABE personnel, including: ° ALRE Maintenance Administration ° Maintenance Programs and Practices ° Safety ° General Maintenance and Upkeep ° Hydraulic System Maintenance ° JBDs ° Aircraft Recovery Equipment ° Barricades Upon completion, the student will be able to maintain and repair the catapult and arresting gear aboard CV and CVN ships without supervision.
Location	NATTC DET Lakehurst
Length	88 days
RFT date	Currently available
Skill identifier	NEC 7006
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	° ABE ° E-5 through E-9 ° NEC 7004 or 7005

Title	**Aircraft Launch and Recovery Equipment Arresting Gear**
CIN	C-604-2029
Model Manager ...	NATTC DET Lakehurst
Description	This course provides training to ABE personnel, including: ° MK-7 MOD 2 Arresting Gear Operation ° MK-7 MOD 3 Arresting Gear Operation ° MK-7 MOD 4 Arresting Gear Operation Upon completion, the student will be able to operate MK-7 series arresting gear aboard CV and CVN type ships under supervision.

Location	NATTC DET Lakehurst
Length	24 days
RFT date	Currently available
Skill identifier	NEC 7005
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	° ABE Rating ° E-4 ° C-604-2012, Aviation Boatswain's Mate Launch and Recovery Equipment Class A1

Title	**Aircraft Launch and Recovery Equipment Maintenance Officer**
CIN	C-604-2011
Model Manager ...	NATTC DET Lakehurst
Description	This course provides training to prospective ALRE Maintenance Officers, including: ° ALRE Maintenance Management ° ALRE Records, Reports, and Logs ° Supply Procedures ° Catapult Systems ° Landing Gear Systems ° Visual Landing Aid Systems ° Technical Library Upon completion, the student will be able to perform as the ALRE Maintenance Officer aboard CV and CVN ships without supervision.
Location	NATTC DET Lakehurst
Length	38 days
RFT date	Currently available
Skill identifier	None
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	° Officers with orders to ALRE Maintenance Officer billets or ° ABE Rating ° E-7 through E-9

Title	**Aircraft Launch and Recovery Equipment Refresher**
CIN	C-604-2016
Model Manager ...	NAMTRAU North Island
Description	This course provides training to Personnel Qualification Standards (PQS) qualified ABE personnel including: ° Type C-13 Series Catapult Operation Upon completion, the student will be able operate C-13 series catapults aboard CV and CVN type ships under supervision.
Location	° NAMTRAU Norfolk ° NAMTRAU North Island
Length	9 days
RFT date	Currently available
Skill identifier	None
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisite	° ABE Rating ° E-5 through E-9

Title	**Aircraft Launch and Recovery Equipment Quality Assurance Administration**
CIN	C-670-2017
Model Manager ...	NAMTRAU Norfolk
Description	This course provides training to ABE, EM, and Aviation Maintenance Administrationman (AZ) personnel, including: ° ALRE Quality Assurance Program Overview ° Quality Assurance Instructions and Directives ° Quality Assurance Record Maintenance ° Quality Assurance Reports ° Monitoring Procedures Upon completion, the student will be able to administer and maintain a Quality Assurance Program aboard CV and CVN ships under all conditions of readiness under limited supervision.

Location	° NAMTRAU Norfolk ° NAMTRAU North Island
Length	5 days
RFT date	Currently available
Skill identifier	None
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	° AZ Rating assigned to V2 Division ° E-4 through E-6 or ° ABE and EM Ratings ° E-6 through E-9

Title	**Aircraft Launch and Recovery Equipment - Catapult Basic**
CIN	C-604-2024
Model Manager ...	NAMTRAU North Island
Description	This course provides training to ABE, EM, and AZ personnel, including: ° Basic Catapult System ° Catapult Operational Phases ° Component Identification ° Basic Troubleshooting ° Operation and Maintenance Publications ° Safety Precautions Upon completion, the student will be able to perform basic catapult maintenance functions aboard CV and CVN ships with close supervision.
Location	° NAMTRAU Norfolk ° NAMTRAU North Island
Length	8 days
RFT date	Currently available
Skill identifier	None
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	ABE Rating (may be non-designated Airman striking for ABE rating)

Title	**Aircraft Launch and Recovery Equipment Arresting Gear**
CIN	C-604-2025
Model Manager ...	NAMTRAU North Island
Description	This course provides aircraft launch and recovery personnel with sufficient knowledge of the Mark-7 Arresting Gear System, including: ° Operational Phases ° Component Identification ° Basic Troubleshooting ° Safety Precautions Upon completion, the student will be able to perform arresting gear maintenance under close supervision.
Location	° NAMTRAU Norfolk ° NAMTRAU North Island
Length	9 days
RFT date	Currently available
Skill identifier	None
TTE/TD	Refer to elements IV.A.1 and IV.A.2 of this NTSP
Prerequisites	° ABE Rating (May be non-designated Airman striking for ABE rating)

(3) Student Profiles

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
ABE	° C-604-2012, Aviation Boatswain's Mate Aircraft Launching and Recovery Equipment Class A1
EM	° A-662-0159, Electrician's Mate "A" School ° A-651-0118, Engineering Common Core ° A-651-0119, Engineering Electrical Core
AZ	° C-555-2010, Aviation Maintenance Administrationman (AZ) Class A1

(4) Training Pipelines. No new training pipelines, tracks, or courses will be required to support current CV and CVN ALRE.

I. ONBOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development

a. Maintenance Training Improvement Program. NA

b. Aviation Maintenance Training Continuum System. NA

2. Personnel Qualification Standards. The following PQS are applicable to personnel assigned to the V-2 Division of CV and CVN type ships.

TITLE	NAVEDTRA NUMBER	MODEL MANAGER
Flight Deck Familiarization	43426-0A	COMNAVAIRLANT
Steam Catapult/Arresting Gear Electrician	43426-25B	COMNAVAIRLANT
Air Department Steam Catapult	43426-5D	COMNAVAIRLANT
Air Department Mk 7 Arresting Gear	43426-6C	COMNAVAIRLANT

3. Other Onboard or In-Service Training Packages. NA

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers

a. Existing CV and CVN Type Ships. The C 13 Catapult, Mark 7 JBD, and Mark 7 Arresting Systems were incorporated into existing CV and CVN type ships during construction by the builder, Newport News Shipbuilding, Newport News, Virginia. Mark 7 Arresting Systems C 13 are installed in CV and CVN type ships during construction.

b. New Construction CVN Type Ship. The USS Ronald Reagan is currently under construction.

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N00024-95-C-2106	Newport News Shipbuilding	4101 Washington Avenue Newport News, VA 23607

b. Service Changes

(1) Mark 7 Arresting Gear Service Change 427

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N68335-98-C-0106	Advanced Development and Manufacturing	325 Soundview Road Guilford, CT 06437

(2) Mark 7 Arresting Gear Service Change 428

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N68335-98-C-0086	Paulsen Wire Rope Corporation	880 South 2nd Street Sunbury, PA 17801

(3) Mark 7 Arresting Gear Service Change 437. Since service change 437 is still in the early stages of the DAS process, no manufacturer has been selected.

2. Program Documentation. Since the systems addressed in this NTSP are all integral components of CV and CVN construction, all program documentation concerning these systems is included as part of the individual ship's new construction work package.

3. Technical Data Plan. Technical documents such as Technical Manuals, Illustrated Parts Breakdown, MRCs, and Planned Maintenance System for the ALRE addressed in this NTSP have all been published and distributed under the cognizance of the Naval Air Technical Data and Engineering Service Command (NATEC), San Diego, California. Refer to element IV.B.3 for a list of technical documents required to support ALRE training.

4. Test Sets, Tools, and Test Equipment. All Test Sets, Tools, and Test Equipment required to support the ALRE addressed in this NTSP have been delivered. Refer to element IV.A.1 for a list of Test Sets, Tools, and Test Equipment required to support ALRE Training.

5. Repair Parts. The Material Support Dates for the ALRE systems discussed in this NTSP were reached in the 1960s. Program Support Inventory Control Point (PSICP) Mechanicsville, Pennsylvania, manages all spare and repair parts for ALRE. All fleet requirements for repair parts are requisitioned through normal supply channels.

6. Human Systems Integration. NA

K. SCHEDULES

1. Installation and Delivery Schedules

a. C 13 Catapult. The C 13 Catapult is installed in CV and CVN type ships during construction. The USS Ronald Reagan is currently under construction.

b. Mark 7 Jet Blast Deflector. Mark 7 JBDs are installed in CV and CVN type ships during construction. The USS Ronald Reagan is currently under construction.

c. Mark 7 Arresting System. Mark 7 Arresting Systems are installed in CV and CVN type ships during construction. The USS Ronald Reagan is currently under construction.

(1) Mark 7 Arresting Gear Service Change 427. Service Change 427 was installed aboard CVN 74 USS John C. Stennis in FY00 and aboard CVN 68 USS Nimitz and CVN 69 Dwight D. Eisenhower in FY01. CVN 76 USS Ronald Reagan is being outfitted with Service Change 427 during construction. The remaining CVs and CVNs will incorporate this service change through attrition.

(2) Mark 7 Arresting Gear Service Change 428. Service Change 428 was installed aboard CVN 74 USS John C. Stennis in FY00 and aboard CVN 68 USS Nimitz and CVN 69 Dwight D. Eisenhower in FY01. CVN 76 USS Ronald Reagan is being outfitted with Service Change 428 during construction. The remaining CVs and CVNs will incorporate this service change through attrition.

(3) Mark 7 Arresting Gear Service Change 437. Service Change 437 is in the System Development and Demonstration Phase of the DAS. First installation is tentatively scheduled for FY03. When detailed installation and delivery schedules are developed they will be included in updates to this NTSP.

2. Ready For Operational Use Schedule. All ALRE addressed in this NTSP are Ready For Operational Use (RFOU) upon successful completion of sea trials. All service changes addressed in this NTSP are RFOU upon completion of installation and operational testing.

3. Time Required to Install at Operational Sites

a. C 13 Catapult. NA

b. Mark 7 Jet Blast Deflector. NA

c. Mark 7 Arresting System

(1) Mark 7 Arresting Gear Service Change 427. Installation of Service Change 427 requires approximately 750 man-hours per arresting engine. The total time required to install Service Change 427 is approximately 3,750 total man-hours per ship.

(2) Mark 7 Arresting Gear Service Change 428. Installation of Service Change 428 requires approximately 72 man-hours per arresting engine. Total time required to install Service Change 428 is approximately 360 total man-hours per ship.

(3) Mark 7 Arresting Gear Service Change 437. When this information becomes available, it will be included in future updates to this NTSP.

4. Foreign Military Sales and Other Source Delivery Schedule. All FMS deliveries have been completed.

5. Training Device and Technical Training Equipment Delivery Schedule. All Training Devices (TD) and Technical Training Equipment (TTE) required to support the training addressed in this NTSP have been delivered. A complete list of all required TDs and TTE are listed in elements IV.A.1 and IV.A.2 of this NTSP.

L. GOVERNMENT-FURNISHED EQUIPMENT AND CONTRACTOR-FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
Aviation Data Management and Control System NTSP	A-50-0009/A	PMA251	Approved Mar 02
Aircraft Carrier Visual Landing Aid Systems NTSP	A-50-9202A/A	PMA251	Approved Nov 99
Maintenance Plan for the Type C - 13 Catapult	NAWCADLKE-MAPL94	NAWCADLKE	Approved Nov 86

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
Mark 7 Mod 4 Arresting Gear Sheave Damper And Fairlead Drive Assembly Integrated Logistics Support Plan	NAWCADLKE-I80095001	NAWCADLKE	Approved Jul 95
Aircraft Launch and Recovery Equipment Maintenance Program (ALREMP)	OPNAVINST 4790.15	PMA251	Approved Jun98

PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by the CV/CVN ALRE and, therefore, are not included in Part II of this NTSP:

II.A. Billet Requirements

II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities

II.A. BILLET REQUIREMENTS

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

SOURCE: Total Force Manpower Management System **DATE:** March 2001

ACTIVITY, UIC		PFYs	CFY02	FY03	FY04	FY05	FY06
OPERATIONAL ACTIVITIES - NAVY							
USS Dwight D. Eisenhower (CVN 69)	03369	1	0	0	0	0	0
USS Enterprise (CVN 65)	03365	1	0	0	0	0	0
USS George Washington (CVN 73)	21412	1	0	0	0	0	0
USS Harry S. Truman (CVN 75)	21853	1	0	0	0	0	0
USS John F. Kennedy (CV 67)	03367	1	0	0	0	0	0
USS Ronald Reagan (CVN 76)	22178	0	0	1	0	0	0
USS Theodore Roosevelt (CVN 71)	21247	1	0	0	0	0	0
USS Abraham Lincoln (CVN 72)	21297	1	0	0	0	0	0
USS Carl Vinson (CVN 70)	20993	1	0	0	0	0	0
USS Constellation (CV 64)	03364	1	0	0	0	0	0
USS John C. Stennis (CVN 74)	21847	1	0	0	0	0	0
USS Kitty Hawk (CV 63)	03363	1	0	0	0	0	0
USS Nimitz (CVN 68)	03368	1	0	0	0	0	0
TOTAL:		12	0	1	0	0	0
FLEET SUPPORT ACTIVITIES - NAVY							
NAMTRAU Norfolk	66046	1	0	0	0	0	0
NAWCAD Lakehurst	68335	1	0	0	0	0	0
NS Roosevelt Roads, Puerto Rico	00389	1	0	0	0	0	0
NS Rota, Spain	62863	1	0	0	0	0	0
NSA Naples, Italy	62588	1	0	0	0	0	0
Strike Test Squadron, Patuxent River	39783	1	0	0	0	0	0
Supervisor of Shipbuilding Newport News	62793	1	0	0	0	0	0
COMNAVAIRPAC	57025	1	0	0	0	0	0
NAMTRAU North Island	66065	1	0	0	0	0	0
FASOTRAGRUPAC	35947	1	0	0	0	0	0
NAS Kingsville	30776	1	0	0	0	0	0
NAS Lemoore	63042	1	0	0	0	0	0
NAWCWD China Lake	60530	1	0	0	0	0	0
TOTAL:		13	0	0	0	0	0

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
OPERATIONAL ACTIVITIES - NAVY					
USS Dwight D. Eisenhower (CVN 69), 03369					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	207			
USS Enterprise (CVN 65), 03365					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	32	ABEAN		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	210			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS George Washington (CVN 73), 21412					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	207			
USS Harry S. Truman (CVN 75), 21853					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	207			
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS John F. Kennedy (CV 67), 03367					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	40	ABE3		
	0	28	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	86	AN		
ACTIVITY TOTAL:	1	204			
USS Ronald Reagan (CVN 76), 22178, FY03 Increment					
ACDU	2	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	2	207			
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Theodore Roosevelt (CVN 71), 21247					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	207			
USS Abraham Lincoln (CVN 72), 21297					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	207			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Carl Vinson (CVN 70), 20993					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	14	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
ACDU	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	213			
USS Constellation (CV 64), 03364					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	40	ABE3		
	0	29	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	86	AN		
ACTIVITY TOTAL:	1	205			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS John C. Stennis (CVN 74), 21847					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	207			
USS Kitty Hawk (CV 63), 03363					
ACDU	1	0	6310		
	0	2	ABECS	7006	
	0	5	ABEC	7004	
	0	3	ABEC	7005	
	0	2	ABEC	7006	
	0	11	ABE1	7004	
	0	2	ABE1	7005	
	0	3	ABE1	7006	
	0	8	ABE2	7004	
	0	8	ABE2	7005	
	0	38	ABE3		
	0	31	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	89	AN		
ACTIVITY TOTAL:	1	208			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
USS Nimitz (CVN 68), 03368					
ACDU	1	0	6310		
	0	1	ABECS	7004	
	0	1	ABECS	7005	
	0	1	ABECS	7006	
	0	2	ABEC	7004	
	0	2	ABEC	7005	
	0	1	ABEC	7006	
	0	8	ABE1	7004	
	0	3	ABE1	7005	
	0	2	ABE1	7006	
	0	13	ABE2	7004	
	0	6	ABE2	7005	
	0	1	ABE2	7005	9595
	0	42	ABE3		
	0	27	ABEAN		
	0	1	AZ1		
	0	1	AZ3		
	0	1	EM1	4672	
	0	1	EM2	4672	
	0	2	EM3	4672	
	0	88	AN		
ACTIVITY TOTAL:	1	204			
FLEET SUPPORT ACTIVITIES - NAVY					
NAMTRAU Norfolk, 66046					
ACDU	0	1	ABECS	7006	9502
	0	1	ABEC	7006	9502
	0	1	ABE1	7006	9502
ACTIVITY TOTAL:	0	3			
NAWCAD Lakehurst, 68335					
ACDU	3	0	6310		
	0	1	ABEC	7004	7005
	0	2	ABEC	7006	
	0	1	ABE1	7004	
	0	2	ABE1	7005	
	0	1	ABE1	7006	
	0	6	ABE2	7004	
	0	2	ABE2	7005	
	0	2	ABE2	7005	7004
ACTIVITY TOTAL:	3	17			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
NS Roosevelt Roads, Puerto Rico, 00389					
ACDU	0	2	ABE1	7005	
	0	2	ABE2	7005	
ACTIVITY TOTAL:	0	4			
NS Rota, Spain, 62863					
ACDU	0	2	ABE2	7005	
ACTIVITY TOTAL:	0	2			
NSA Naples, Italy, 62588					
ACDU	0	1	ABE1	7006	9598
ACTIVITY TOTAL:	0	1			
Strike Test Squadron, Patuxent River, 39783					
ACDU	1	0	6310		
	0	1	ABEC	7004	7005
	0	1	ABE1	7004	
	0	1	ABE1	7005	
ACTIVITY TOTAL:	1	3			
Supervisor of Shipbuilding Newport News, 62793					
ACDU	0	1	ABEC	7006	
ACTIVITY TOTAL:	0	1			
COMNAVAIRPAC, 57025					
ACDU	0	1	ABECS	7004	
ACTIVITY TOTAL:	0	1			
NAMTRAU North Island, 66065					
ACDU	0	2	ABEC	7006	9502
	0	3	ABE1	7006	9502
ACTIVITY TOTAL:	0	5			
FASOTRAGRUPAC, 35947					
ACDU	0	1	ABEC	7004	7005
ACTIVITY TOTAL:	0	1			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
NAS Kingsville, 30776					
ACDU	0	2	ABE1	7005	
ACTIVITY TOTAL:	0	2			
NAS Lemoore, 63042					
ACDU	0	1	ABECS	7006	
	0	1	ABE1	7005	7006
ACTIVITY TOTAL:	0	2			

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
NAVY OPERATIONAL ACTIVITIES - ACDU													
6310		12		0		2		0		0		0	
ABECS	7004	1		0		0		0		0		0	
ABECS	7005	1		0		0		0		0		0	
ABECS	7006	23		0		2		0		0		0	
ABEC	7004	57		0		5		0		0		0	
ABEC	7005	35		0		3		0		0		0	
ABEC	7006	23		0		2		0		0		0	
ABE1	7004	129		0		11		0		0		0	
ABE1	7005	25		0		2		0		0		0	
ABE1	7006	35		0		3		0		0		0	
ABE2	7004	107		0		8		0		0		0	
ABE2	7005	94		0		8		0		0		0	
ABE2	7005 9595	1		0		0		0		0		0	
ABE3		496		0		42		0		0		0	
ABEAN		336		0		27		0		0		0	
AZ1		11		0		1		0		0		0	
AZ3		11		0		1		0		0		0	
EM1	4672	12		0		1		0		0		0	
EM2	4672	12		0		1		0		0		0	
EM3	4672	24		0		2		0		0		0	
AN		1053		0		88		0		0		0	
NAVY FLEET SUPPORT ACTIVITIES - ACDU													
6310		4		0		0		0		0		0	
ABECS	7004	1		0		0		0		0		0	
ABECS	7006	1		0		0		0		0		0	
ABECS	7006 9502	1		0		0		0		0		0	
ABEC	7004 7005	3		0		0		0		0		0	
ABEC	7006	3		0		0		0		0		0	
ABEC	7006 9502	3		0		0		0		0		0	
ABE1	7004	2		0		0		0		0		0	
ABE1	7005	7		0		0		0		0		0	
ABE1	7005 7006	1		0		0		0		0		0	
ABE1	7006	1		0		0		0		0		0	
ABE1	7006 9502	4		0		0		0		0		0	
ABE1	7006 9598	1		0		0		0		0		0	
ABE2	7004	6		0		0		0		0		0	
ABE2	7005	6		0		0		0		0		0	
ABE2	7005 7004	2		0		0		0		0		0	

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
SUMMARY TOTALS:													
NAVY OPERATIONAL ACTIVITIES - ACDU													
		12	2486	0	0	2	207	0	0	0	0	0	0
NAVY FLEET SUPPORT ACTIVITIES - ACDU													
		4	42	0	0	0	0	0	0	0	0	0	0
GRAND TOTALS:													
NAVY - ACDU													
		16	2527	0	0	2	207	0	0	0	0	0	0

II.A.2.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY DEACTIVATION SCHEDULE

SOURCE: Total Force Manpower Management System **DATE:**03/01/2001

ACTIVITY, UIC		PFYs	CFY02	FY03	FY04	FY05	FY06
OPERATIONAL ACTIVITIES - NAVY							
USS Constellation (CV 64)	03364	0	1	0	0	0	0
TOTAL:		0	1	0	0	0	0

II.A.2.c. TOTAL BILLETS TO BE DELETED IN OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
NAVY OPERATIONAL ACTIVITIES - ACDU													
6310		1		-1		0		0		0		0	
ABECS	7006		2		-2		0		0		0		0
ABEC	7004		5		-5		0		0		0		0
ABEC	7005		3		-3		0		0		0		0
ABEC	7006		2		-2		0		0		0		0
ABE1	7004		11		-11		0		0		0		0
ABE1	7005		2		-2		0		0		0		0
ABE1	7006		3		-3		0		0		0		0
ABE2	7004		8		-8		0		0		0		0
ABE2	7005		8		-8		0		0		0		0
ABE3			40		-40		0		0		0		0
ABEAN			29		-29		0		0		0		0
AZ1			1		-1		0		0		0		0
AZ3			1		-1		0		0		0		0
EM1	4672		1		-1		0		0		0		0
EM2	4672		1		-1		0		0		0		0
EM3	4672		2		-2		0		0		0		0
AN			86		-86		0		0		0		0

SUMMARY TOTALS:

NAVY OPERATIONAL ACTIVITIES - ACDU												
1	205	-1	-205	0	0	0	0	0	0	0	0	

GRAND TOTALS:

NAVY - ACDU												
1	205	-1	-205	0	0	0	0	0	0	0	0	

II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG RATING	PNEC/SNEC PMOS/SMOS		PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU Norfolk, 46680														
INSTRUCTOR BILLETS														
ACDU														
ABE1	7004	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABE1	7005	9502	0	1	0	1	0	1	0	1	0	1	0	1
TOTAL:			0	2	0	2	0	2	0	2	0	2	0	2
TRAINING ACTIVITY, LOCATION, UIC: NAMTRAU North Island, 39476														
INSTRUCTOR BILLETS														
ACDU														
ABECS	7006	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABE1	7004	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABE1	7005	9502	0	1	0	1	0	1	0	1	0	1	0	1
TOTAL:			0	3	0	3	0	3	0	3	0	3	0	3
TRAINING ACTIVITY, LOCATION, UIC: NATTC DET Lakehurst, 63094														
INSTRUCTOR BILLETS														
ACDU														
6310			1	0	1	0	1	0	1	0	1	0	1	0
ABECS	7006	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABEC	7004	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABEC	7005	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABEC	7006	9502	0	2	0	2	0	2	0	2	0	2	0	2
ABE1	7004	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABE1	7005	9502	0	1	0	1	0	1	0	1	0	1	0	1
ABE1	7006	9502	0	2	0	2	0	2	0	2	0	2	0	2
EM1	4672	9502	0	2	0	2	0	2	0	2	0	2	0	2
TOTAL:			1	11	1	11	1	11	1	11	1	11	1	11

II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs OFF	PFYs ENL	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
NAMTRAU Norfolk, 46680													
	NAVY		0.0		0.0		0.0		0.0		0.0		0.0
NATTC DET Lakehurst, 63094													
	NAVY	0.3	18.2	0.4	18.5	0.5	20.6	0.4	18.3	0.4	18.3	0.4	18.3
NAMTRAU North Island, 39476													
	NAVY		0.0		0.0		0.0		0.0		0.0		0.0
SUMMARY TOTALS:													
	NAVY	0.3	18.2	0.4	18.5	0.5	20.6	0.4	18.3	0.4	18.3	0.4	18.3
GRAND TOTALS:													
		0.3	18.2	0.4	18.5	0.5	20.6	0.4	18.3	0.4	18.3	0.4	18.3

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY02 +/-	CFY02 CUM	FY03 +/-	FY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM
a. OFFICER - USN													
Operational Billets ACDU and TAR													
6310			12	-1	11	2	13	0	13	0	13	0	13
Fleet Support Billets ACDU and TAR													
6310			4	0	4	0	4	0	4	0	4	0	4
Staff Billets ACDU and TAR													
6310			1	0	1	0	1	0	1	0	1	0	1
Chargeable Student Billets ACDU and TAR													
			0	1	1	0	1	0	1	0	1	0	1
TOTAL USN OFFICER BILLETS:													
Operational			12	-1	11	2	13	0	13	0	13	0	13
Fleet Support			4	0	4	0	4	0	4	0	4	0	4
Staff			1	0	1	0	1	0	1	0	1	0	1
Chargeable Student			0	1	1	0	1	0	1	0	1	0	1
b. ENLISTED - USN													
Operational Billets ACDU and TAR													
ABECS	7004		1	0	1	0	1	0	1	0	1	0	1
ABECS	7005		1	0	1	0	1	0	1	0	1	0	1
ABECS	7006		23	-2	21	2	23	0	23	0	23	0	23
ABEC	7004		57	-5	52	5	57	0	57	0	57	0	57
ABEC	7005		35	-3	32	3	35	0	35	0	35	0	35
ABEC	7006		23	-2	21	2	23	0	23	0	23	0	23
ABE1	7004		129	-11	118	11	129	0	129	0	129	0	129
ABE1	7005		25	-2	23	2	25	0	25	0	25	0	25
ABE1	7006		35	-3	32	3	35	0	35	0	35	0	35
ABE2	7004		107	-8	99	8	107	0	107	0	107	0	107
ABE2	7005		94	-8	86	8	94	0	94	0	94	0	94
ABE2	7005	9595	1	0	1	0	1	0	1	0	1	0	1
ABE3			496	-40	456	42	498	0	498	0	498	0	498
ABEAN			336	-29	307	27	334	0	334	0	334	0	334
AZ1			11	-1	10	1	11	0	11	0	11	0	11
AZ3			11	-1	10	1	11	0	11	0	11	0	11
EM1	4672		12	-1	11	1	12	0	12	0	12	0	12

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY02 +/-	CFY02 CUM	FY03 +/-	FY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM
EM2	4672		12	-1	11	1	12	0	12	0	12	0	12
EM3	4672		24	-2	22	2	24	0	24	0	24	0	24
AN			1053	-86	967	88	1055	0	1055	0	1055	0	1055
Fleet Support Billets ACDU and TAR													
ABECS	7004		1	0	1	0	1	0	1	0	1	0	1
ABECS	7006		1	0	1	0	1	0	1	0	1	0	1
ABECS	7006	9502	1	0	1	0	1	0	1	0	1	0	1
ABEC	7004	7005	3	0	3	0	3	0	3	0	3	0	3
ABEC	7006		3	0	3	0	3	0	3	0	3	0	3
ABEC	7006	9502	3	0	3	0	3	0	3	0	3	0	3
ABE1	7004		2	0	2	0	2	0	2	0	2	0	2
ABE1	7005		7	0	7	0	7	0	7	0	7	0	7
ABE1	7005	7006	1	0	1	0	1	0	1	0	1	0	1
ABE1	7006		1	0	1	0	1	0	1	0	1	0	1
ABE1	7006	9502	4	0	4	0	4	0	4	0	4	0	4
ABE1	7006	9598	1	0	1	0	1	0	1	0	1	0	1
ABE2	7004		6	0	6	0	6	0	6	0	6	0	6
ABE2	7005		6	0	6	0	6	0	6	0	6	0	6
ABE2	7005	7004	2	0	2	0	2	0	2	0	2	0	2
Staff Billets ACDU and TAR													
ABECS	7006	9502	2	0	2	0	2	0	2	0	2	0	2
ABEC	7004	9502	1	0	1	0	1	0	1	0	1	0	1
ABEC	7005	9502	1	0	1	0	1	0	1	0	1	0	1
ABEC	7006	9502	2	0	2	0	2	0	2	0	2	0	2
ABE1	7004	9502	3	0	3	0	3	0	3	0	3	0	3
ABE1	7005	9502	3	0	3	0	3	0	3	0	3	0	3
ABE1	7006	9502	2	0	2	0	2	0	2	0	2	0	2
EM1	4672	9502	2	0	2	0	2	0	2	0	2	0	2
Chargeable Student Billets ACDU and TAR													
			18	1	19	2	21	-3	18	0	18	0	18
TOTAL USN ENLISTED BILLETS:													
Operational			2486	-205	2281	207	2488	0	2488	0	2488	0	2488
Fleet Support			42	0	42	0	42	0	42	0	42	0	42
Staff			16	0	16	0	16	0	16	0	16	0	16
Chargeable Student			18	1	19	2	21	-3	18	0	18	0	18

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY02 +/-	CFY02 CUM	FY03 +/-	FY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM

c. OFFICER - USMC Not Applicable

d. ENLISTED - USMC Not Applicable

II.B. PERSONNEL REQUIREMENTS

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: C-604-2013, CV Catapult Electrician
COURSE LENGTH: 4.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.08

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NATTC DET Lakehurst												
	NAVY	ACDU		16		19		16		16		16
		TOTAL:		16		19		16		16		16

CIN, COURSE TITLE: C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1
COURSE LENGTH: 6.4 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.13

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NATTC DET Lakehurst												
	NAVY	ACDU		82		92		81		81		81
		TOTAL:		82		92		81		81		81

CIN, COURSE TITLE: C-604-2028, Aircraft Launch and Recovery Equipment Maintenance Technician
COURSE LENGTH: 12.8 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.26

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NATTC DET Lakehurst												
	NAVY	ACDU		20		21		19		19		19
		TOTAL:		20		21		19		19		19

CIN, COURSE TITLE: C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear
COURSE LENGTH: 3.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.07

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NATTC DET Lakehurst												
	NAVY	ACDU		49		56		49		49		49
		TOTAL:		49		56		49		49		49

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer
COURSE LENGTH: 5.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.11

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NATTC DET Lakehurst												
	NAVY	ACDU		3		5		4		4		4
		ACDU	4		5		4		4		4	
		TOTAL:	4	3	5	5	4	4	4	4	4	4

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Refresher
COURSE LENGTH: 1.4 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 5% **BACKOUT FACTOR:** 0.00

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU Norfolk												
	NAVY	ACDU		107		143		125		125		125
NAMTRAU North Island												
	NAVY	ACDU		102		85		85		85		85
		TOTAL:		209		228		210		210		210

CIN, COURSE TITLE: C-670-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration
COURSE LENGTH: 1.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 5% **BACKOUT FACTOR:** 0.00

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU Norfolk												
	NAVY	ACDU		141		188		164		164		164
NAMTRAU North Island, San Diego, California												
	NAVY	ACDU		142		119		119		119		119
		TOTAL:		283		307		283		283		283

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
COURSE LENGTH: 1.2 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 5% **BACKOUT FACTOR:** 0.00

TRAINING		ACDU/TAR	CFY02		FY03		FY04		FY05		FY06	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAMTRAU Norfolk												
	NAVY	ACDU		248		330		289		289		289
NAMTRAU North Island												
	NAVY	ACDU		247		206		206		206		206
		TOTAL:		495		536		495		495		495

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
COURSE LENGTH: 1.4 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 5% **BACKOUT FACTOR:** 0.00

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY02 OFF	CFY02 ENL	FY03 OFF	FY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL
NAMTRAU Norfolk												
	NAVY	ACDU		248		330		289		289		289
NAMTRAU North Island												
	NAVY	ACDU		247		206		206		206		206
		TOTAL:		495		536		495		495		495

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the CV/CVN ALRE and, therefore, are not included in Part III of this NTSP:

III.A.1. Initial Training Requirements

III.A.2. Follow-on Training

III.A.2.b. Planned Courses

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

III.A.2. FOLLOW-ON TRAINING

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: C-604-2013, CV Catapult Electrician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	16		19		16		16		16	ATIR
	14		17		14		14		14	Output
	1.1		1.3		1.1		1.1		1.1	AOB
	1.1		1.3		1.1		1.1		1.1	Chargeable

CIN, COURSE TITLE: C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	82		92		81		81		81	ATIR
	74		83		73		73		73	Output
	9.4		10.5		9.3		9.3		9.3	AOB
	9.4		10.5		9.3		9.3		9.3	Chargeable

CIN, COURSE TITLE: C-604-2028, Aircraft Launch and Recovery Equipment Maintenance Technician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	20		21		19		19		19	ATIR
	18		19		17		17		17	Output
	4.6		4.8		4.4		4.4		4.4	AOB
	4.6		4.8		4.4		4.4		4.4	Chargeable

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	49		56		49		49		49	ATIR
	44		50		44		44		44	Output
	3.1		3.5		3.1		3.1		3.1	AOB
	3.1		3.5		3.1		3.1		3.1	Chargeable

CIN, COURSE TITLE: C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
4	3	5	5	4	4	4	4	4	4	ATIR
4	3	5	5	4	4	4	4	4	4	Output
0.4	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	AOB
0.4	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	Chargeable

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Refresher
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	107		143		125		125		125	ATIR
	102		136		119		119		119	Output
	3.1		4.2		3.7		3.7		3.7	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	102		85		85		85		85	ATIR
	97		81		81		81		81	Output
	3.0		2.5		2.5		2.5		2.5	AOB

0.0	0.0	0.0	0.0	0.0	Chargeable

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: C-670-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	141		188		164		164		164	ATIR
	134		179		156		156		156	Output
	1.9		2.5		2.2		2.2		2.2	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	142		119		119		119		119	ATIR
	135		113		113		113		113	Output
	1.9		1.6		1.6		1.6		1.6	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	248		330		289		289		289	ATIR
	236		314		275		275		275	Output
	6.6		8.8		7.7		7.7		7.7	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	247		206		206		206		206	ATIR
	235		196		196		196		196	Output
	6.6		5.5		5.5		5.5		5.5	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	248		330		289		289		289	ATIR
	236		314		275		275		275	Output
	6.0		7.9		6.9		6.9		6.9	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

SOURCE: NAVY **STUDENT CATEGORY:** ACDU - TAR

CFY02		FY03		FY04		FY05		FY06		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	247		206		206		206		206	ATIR
	235		196		196		196		196	Output
	5.9		5.0		5.0		5.0		5.0	AOB
	0.0		0.0		0.0		0.0		0.0	Chargeable

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the CV/CVN ALRE and, therefore, are not included in Part IV of this NTSP:

IV.A. Training Hardware

IV.A.2. Training Devices

IV.B.1. Training Services

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

IV.C.2. Facility Requirements Detailed by Activity and Course

IV.C.3. Facility Project Summary by Program

IV.A. TRAINING HARDWARE

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-604-2013, CV Catapult Electrician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
004	C-13 MOD1 Catapult	1	Mar 90	GFE	Onboard
005	MK 7 MOD 3 Arresting Gear	1	Mar 90	GFE	Onboard
025	Lighted Deck Edge Panel	1	Mar 90	GFE	Onboard
030	Pressure Switch	1	Mar 90	GFE	Onboard
037	MK 7 MOD 0 Auxiliary JBD Control Box	1	Mar 90	GFE	Onboard
061	Ground Fault Measuring Device Box Assembly	1	Mar 90	GFE	Onboard
062	Weight Assembly Confirmation	1	Mar 90	GFE	Onboard
063	Light Box Assembly	1	Mar 90	GFE	Onboard
064	Electromagnetic Relay	1	Mar 90	GFE	Onboard
065	Encoder Shaft	1	Mar 90	GFE	Onboard
066	Brake Assembly Motor Unit	1	Mar 90	GFE	Onboard
067	Main Pump Push Switch	1	Mar 90	GFE	Onboard
068	Timer, Interval Clock	1	Mar 90	GFE	Onboard
069	Syncro Transmitter	1	Mar 90	GFE	Onboard
070	Limit Switch Assembly	1	Mar 90	GFE	Onboard
071	Syncro Receiver Transmitter	1	Mar 90	GFE	Onboard
072	Push Switch	1	Mar 90	GFE	Onboard
073	JBD Control Box	1	Mar 90	GFE	Onboard
074	Auxiliary JBD Control Box	1	Mar 90	GFE	Onboard
075	CSV Center Deck Box	1	Mar 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
004	C-13 Catapult MOD1	1	Mar 90	GFE	Onboard
007	Lock, Valve Assembly	1	Mar 90	GFE	Onboard
008	S-3 Tension Bar	2	Mar 90	GFE	Onboard
010	A-6 Tension Bar	1	Mar 90	GFE	Onboard
011	Stroke Timer Clock	1	Mar 90	GFE	Onboard
012	Filtering Disk	1	Mar 90	GFE	Onboard
013	Module Assembly with Jet	1	Mar 90	GFE	Onboard
014	Steam Plug Mock-Up	1	Mar 90	GFE	Onboard
015	Grab Latch, Catapult	1	Mar 90	GFE	Onboard
016	Snubber and Rod Assembly	1	Mar 90	GFE	Onboard
017	Solenoid, Electrical Lock Valve	1	Mar 90	GFE	Onboard
018	A-6 Trail Bar Holdback	1	Mar 90	GFE	Onboard
019	Valve Bonnet Assembly	1	Mar 90	GFE	Onboard
020	Steam Fluid Valve	1	Mar 90	GFE	Onboard
021	Catapult Exhaust Valve with Hydraulic Actuator	1	Mar 90	GFE	Onboard
022	Accumulator Assembly	1	Mar 90	GFE	Onboard
023	Shuttle Grab Assembly	1	Mar 90	GFE	Onboard
024	Engine Assembly, Launching	1	Mar 90	GFE	Onboard
025	Lighted Deck Edge Panel	1	Mar 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

026	CV 63, 64, 65, and 67 Maintenance Control Console	1	Mar 90	GFE	Onboard
027	Lighted Panel, Deck Edge Catapult	1	Mar 90	GFE	Onboard
028	Stroke Valve Launch Timer	1	Mar 90	GFE	Onboard
029	Launch Valve Control Piston	1	Mar 90	GFE	Onboard
030	Pressure Switch	1	Mar 90	GFE	Onboard
031	Water Brake Cylinder	1	Mar 90	GFE	Onboard
032	Capacity Selector Valve	1	Mar 90	GFE	Onboard
033	Launch Valve Assembly	1	Mar 90	GFE	Onboard
034	Motorized Operator Valve	1	Mar 90	GFE	Onboard
035	Linear Actuating Cylinder, 21 Inch	1	Mar 90	GFE	Onboard
036	Digital Endspeed Indicator	1	Mar 90	GFE	Onboard
037	MK 7 MOD 0 Auxiliary JBD Control Box	1	Mar 90	GFE	Onboard
038	Sealing Strip	1	Mar 90	GFE	Onboard
039	Portable JBD Control Box	1	Mar 90	GFE	Onboard
040	Catapult Launch Cylinder	1	Mar 90	GFE	Onboard
ST					
346	Eye Bolt A91477-11	6	Mar 90	GFE	Onboard

CIN, COURSE TITLE: C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
023	Shuttle Grab Assembly	1	Mar 90	GFE	Onboard
032	Capacity Selector Valve	1	Mar 90	GFE	Onboard
033	Launch Valve Assembly	1	Mar 90	GFE	Onboard
048	Control Valve Stem	1	Mar 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

049	Control Valve Seat	1	Mar 90	GFE	Onboard
ST					
302	Pouring Cabinet Socket	1	Mar 90	GFE	Onboard
303	Portable Air Enricher Chamber	1	Mar 90	GFE	Onboard
304	Gas Furnace	2	Mar 90	GFE	Onboard
305	Zinc Melting Ladle	2	Mar 90	GFE	Onboard
306	Blast Cleaning Cabinet	1	Mar 90	GFE	Onboard
307	Hottop Cutter Assembly	1	Mar 90	GFE	Onboard
308	Saddle Assembly Clamp Loop	2	Mar 90	GFE	Onboard
309	Installing Tool	3	Mar 90	GFE	Onboard
310	Launch Valve Table Lift	1	Mar 90	GFE	Onboard
311	Cable Clamp Wrench Assembly	2	Mar 90	GFE	Onboard
312	Electric Hot Plate	1	Mar 90	GFE	Onboard
313	Machinist Vice	1	Mar 90	GFE	Onboard
314	Jacking Block Assembly	1	Mar 90	GFE	Onboard
315	Pipe Bracket 523009-2	1	Mar 90	GFE	Onboard
316	Pipe Bracket 523009-1	1	Mar 90	GFE	Onboard
317	Socket and Ram Tester Assembly	1	Mar 90	GFE	Onboard
318	A Frame Gantry	1	Mar 90	GFE	Onboard
319	Special Tool Cart	1	Mar 90	GFE	Onboard
320	Ultrasonic Degreaser	1	Mar 90	GFE	Onboard
321	Packing Inserter	1	Mar 90	GFE	Onboard
322	Segment Depressor	1	Mar 90	GFE	Onboard
323	Piston Tool Assembly	1	Mar 90	GFE	Onboard
324	Piston Ring Compressor	1	Mar 90	GFE	Onboard
325	Cylinder Removal Fixture	1	Mar 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

326	Piston Support Spear	1	Mar 90	GFE	Onboard
327	Gage, Water Brake	1	Mar 90	GFE	Onboard
328	Tension Tool Assembly	1	Mar 90	GFE	Onboard
329	Special Piston Rod Wrench	1	Mar 90	GFE	Onboard
330	Piston Rod Open End Wrench 514329-2	1	Mar 90	GFE	Onboard
331	Piston Rod Open End Wrench 514239-3	1	Mar 90	GFE	Onboard
332	Piston Bolt Wrench	1	Mar 90	GFE	Onboard
333	Spanner Wrench 87124-4	1	Mar 90	GFE	Onboard
334	Spanner Wrench 422091-1	1	Mar 90	GFE	Onboard
335	Choke Ring Wrench	1	Mar 90	GFE	Onboard
336	Sheave Groove Gage	1	Mar 90	GFE	Onboard
337	Engine Ram Holding Fixture	2	Mar 90	GFE	Onboard
338	Insertion Fixture	1	Mar 90	GFE	Onboard
339	Cylinder Assembly Support	1	Mar 90	GFE	Onboard
340	Spanner Wrench 315414-1	1	Mar 90	GFE	Onboard
341	Piston Removal Kit	1	Mar 90	GFE	Onboard
342	Loop Clamp	2	Mar 90	GFE	Onboard
343	Sheave Damper Assembly Tool	1	Mar 90	GFE	Onboard
344	Special Wrench 423376-1	1	Mar 90	GFE	Onboard
345	Straight Headed Alignment Pin	2	Mar 90	GFE	Onboard
347	Shaft Puller	1	Mar 90	GFE	Onboard
348	Packing Gland Ejector	1	Mar 90	GFE	Onboard
349	Union Nut Wrench 8F2239	1	Mar 90	GFE	Onboard
350	Union Nut Wrench 2B1742	1	Mar 90	GFE	Onboard
351	Weldment Aircraft Launching Bracket 626717-5	2	Mar 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

352	Weldment Aircraft Launching Bracket 626717-1	2	Mar 90	GFE	Onboard
353	Micrometer 0-12 Inch	2	Mar 90	GFE	Onboard
354	Tensiometer	3	Mar 90	GFE	Onboard
355	Pyrometer 0-1200 Degrees Fahrenheit	2	Mar 90	GFE	Onboard
356	Torque Wrench 0-250 Foot Pound	2	Mar 90	GFE	Onboard
357	Torque Wrench 0-600 Foot Pound	2	Mar 90	GFE	Onboard
358	Torque Wrench 0-1000 Foot Pound	2	Mar 90	GFE	Onboard
359	Vernier Caliper	2	Mar 90	GFE	Onboard
360	Hydraulic Torque Machine	1	Mar 90	GFE	Onboard
361	Caliper Micro Tube Type 1, 5-32 Inch	2	Mar 90	GFE	Onboard
362	Outside Caliper 0-1 Inch Range	2	Mar 90	GFE	Onboard
363	Outside Caliper 1-2 Inch Range	2	Mar 90	GFE	Onboard
364	Outside Caliper 2-3 Inch Range	2	Mar 90	GFE	Onboard
365	Outside Caliper 3-4 Inch Range	2	Mar 90	GFE	Onboard
366	Outside Caliper 4-5 Inch Range	2	Mar 90	GFE	Onboard
367	Outside Caliper 5-6 Inch Range	2	Mar 90	GFE	Onboard
368	Outside Caliper 7-8 Inch Range	2	Mar 90	GFE	Onboard
369	Outside Caliper 8-9 Inch Range	2	Mar 90	GFE	Onboard
370	Outside Caliper 9-12 Inch Range	2	Mar 90	GFE	Onboard
371	Outside Caliper 12-16 Inch Range	2	Mar 90	GFE	Onboard
372	Outside Caliper 16-20 Inch Range	2	Mar 90	GFE	Onboard
373	Outside Caliper 20-24 Inch Range	2	Mar 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
005	MK 7 MOD 3 Arresting Gear	1	Mar 90	GFE	Onboard
041	Barricade Power Pack	1	Mar 90	GFE	Onboard
042	Arresting Gear Barricade	1	Mar 90	GFE	Onboard
043	Piston Rod Damper Assembly	2	Mar 90	GFE	Onboard
044	Cylinder Assembly 607955-1	1	Mar 90	GFE	Onboard
045	Cylinder and Ram Assembly 63094-95-0051	1	Mar 90	GFE	Onboard
046	Cylinder and Ram Assembly	1	Mar 90	GFE	Onboard
047	Fluid Cooler Repair Kit Status Board	1	Mar 90	GFE	Onboard
048	Control Valve Stem	1	Mar 90	GFE	Onboard
049	Control Valve Seat	1	Mar 90	GFE	Onboard
050	Special Screw 317310-1	1	Mar 90	GFE	Onboard
051	Valve Stem Sleeve	1	Mar 90	GFE	Onboard
052	Valve Cam	1	Mar 90	GFE	Onboard
053	Retract Valve Stem	1	Mar 90	GFE	Onboard
054	Retract Valve Stem Seat	1	Mar 90	GFE	Onboard
055	Flapper Control Valve	1	Mar 90	GFE	Onboard
056	Shaft Sleeve A-497444	1	Mar 90	GFE	Onboard
057	Screw Assembly retractable Sheave	1	Mar 90	GFE	Onboard
058	Retractable Sheave Worm Shaft	1	Mar 90	GFE	Onboard
059	Retract Valve Plunger	1	Mar 90	GFE	Onboard
060	Strap Assembly 317439-1	1	Mar 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
002	Fresnel Lens Optical Landing System MK 6 MOD3	1	Mar 90	GFE	Onboard
003	Landing Signal Officer Heads-Up Display Console	1	Mar 90	GFE	Onboard
004	C-13 Catapult MOD1	1	Mar 90	GFE	Onboard
005	MK 7 MOD 3 Arresting Gear	1	Mar 90	GFE	Onboard
006	CV Configured LSO Workstation	1	Jan 00	GFE	Pending

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Equipment Refresher
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
076	Catapult Control Station Board	1	May 90	GFE	Onboard
077	Catapult Launch Sequence Device	1	May 90	GFE	Onboard
078	Catapult Rotary Launch Valve	1	May 90	GFE	Onboard
079	Catapult Capacity Selector Valve	1	May 90	GFE	Onboard
ST					
374	Micrometer Outside Caliper	1	May 90	GFE	Onboard

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Equipment Refresher
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
076	Catapult Control Station Board	1	May 90	GFE	Onboard
077	Catapult Launch Sequence Device	1	May 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

078	Catapult Rotary Launch Valve	1	May 90	GFE	Onboard
079	Catapult Capacity selector Valve	1	May 90	GFE	Onboard
ST					
374	Micrometer Outside Caliper	1	May 90	GFE	Onboard

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
076	Catapult Control Station Board	1	May 90	GFE	Onboard
077	Catapult Launch Sequence Device	1	May 90	GFE	Onboard
078	Catapult Rotary Launch Valve	1	May 90	GFE	Onboard
079	Catapult Capacity Selector Valve	1	May 90	GFE	Onboard
080	MK 2 Nose Gear Launch Assembly	1	May 90	GFE	Onboard
GPTE					
375	Depth Micrometer	1	May 90	GFE	Onboard
ST					
374	Micrometer Outside Caliper	1	May 90	GFE	Onboard

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
076	Catapult Control Station Board	1	May 90	GFE	Onboard
077	Catapult Launch Sequence Device	1	May 90	GFE	Onboard
078	Catapult Rotary Launch Valve	1	May 90	GFE	Onboard
079	Catapult Capacity Selector Valve	1	May 90	GFE	Onboard
080	MK 2 Nose Gear Launch Assembly	1	May 90	GFE	Onboard

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

GPTE					
375	Depth Micrometer	1	May 90	GFE	Onboard
ST					
374	Micrometer Outside Caliper	1	May 90	GFE	Onboard

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
379	Wire Rope Pouring Station	1	May 90	GFE	Onboard
ST					
376	Straightening Tube	1	May 90	GFE	Onboard
377	Tube, Strand Separator	1	May 90	GFE	Onboard
378	Tube Bender	1	May 90	GFE	Onboard

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
379	Wire Rope Pouring Station	1	May 90	GFE	Onboard
ST					
376	Straightening Tube	1	May 90	GFE	Onboard
377	Tube, Strand Separator	1	May 90	GFE	Onboard
378	Tube Bender	1	May 90	GFE	Onboard

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-604-2013, CV Catapult Electrician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Curriculum Outline	10	May 90	Onboard
Instructor Guide	2	May 90	Onboard
Lesson Guide	4	May 90	Onboard
Prevailed Modula Electromagnetic Relay FC400-78	1	Mar 90	Onboard
Projector Screen	1	Mar 90	Onboard
Still Projector	1	Mar 90	Onboard
Student Guide	30	May 90	Onboard
Student Test	30	May 90	Onboard
Television	1	Mar 90	Onboard
Transparencies	2 Sets	May 90	Onboard
Video Cassette Player	1	Mar 90	Onboard

CIN, COURSE TITLE: C-604-2014, Aircraft Launch and Recovery Equipment C13 Catapult Class C1
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Curriculum Outline	10	May 90	Onboard
Instructor Guide	2	May 90	Onboard
Lesson Guide	4	May 90	Onboard
Overhead Projector	2	Mar 90	Onboard
Projector Screen	1	Mar 90	Onboard
Student Guide	30	May 90	Onboard
Student Test	30	May 90	Onboard
Television	1	Mar 90	Onboard
Transparencies	4 Sets	May 90	Onboard
Video Cassette Recorder	1	Mar 90	Onboard
Video Cassette Player	1	Mar 90	Onboard
Video Monitor	1	Mar 90	Onboard

CIN, COURSE TITLE: C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Curriculum Outline	10	May 90	Onboard
Instructor Guide	2	May 90	Onboard
Lesson Guide	4	May 90	Onboard
Student Guide	30	May 90	Onboard
Student Test	30	May 90	Onboard
Transparencies	8 Sets	May 90	Onboard

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Curriculum Outline	10	May 90	Onboard
Instructor Guide	2	May 90	Onboard
Lesson Guide	4	May 90	Onboard
Still Projector	1	Mar 90	Onboard
Student Guide	30	May 90	Onboard
Student Test	30	May 90	Onboard
Television	1	Mar 90	Onboard
Transparencies	5 Sets	May 90	Onboard
Video Cassette Player	1	Mar 90	Onboard

CIN, COURSE TITLE: C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Curriculum Outline	10	May 90	Onboard
Instructor Guide	2	May 90	Onboard
Lesson Guide	4	May 90	Onboard
Projector Screen	1	Mar 90	Onboard
Still Projector	1	Mar 90	Onboard
Student Guide	30	May 90	Onboard
Student Test	30	May 90	Onboard
Transparencies	6 Sets	May 90	Onboard

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Equipment Refresher
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guide	1	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	20	May 90	Onboard
Transparencies	4 Sets	May 90	Onboard

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Equipment Refresher
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guide	1	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	20	May 90	Onboard
Transparencies	4 Sets	May 90	Onboard

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-670-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guide	2	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	15	May 90	Onboard
Transparencies	2 Sets	May 90	Onboard

CIN, COURSE TITLE: C-670-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guide	2	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	15	May 90	Onboard
Transparencies	2 Sets	May 90	Onboard

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guide	1	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	20	May 90	Onboard
Transparencies	4 Sets	May 90	Onboard

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Instructor Guide	1	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	20	May 90	Onboard
Transparencies	4 Sets	May 90	Onboard

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Arresting Gear CROV Valve Mock-up	1	May 90	Onboard
Arresting Gear Fluid Transfer System Mock-up	1	May 90	Onboard
Instructor Guide	2	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	20	May 90	Onboard
Transparencies	2 sets	May 90	Onboard

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
Arresting Gear CROV Valve Mock-up	1	May 90	Onboard
Arresting Gear Fluid Transfer System Mock-up	1	May 90	Onboard
Instructor Guide	2	May 90	Onboard
Overhead Projector	1	May 90	Onboard
Student Guide	20	May 90	Onboard
Transparencies	2 sets	May 90	Onboard

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-604-2013, CV Catapult Electrician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 00-25-100 Technical Publications Library Management	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABB-4.1/ 4.2/ 4.3 Steam Catapults O& I Level Maintenance with IPB	Hard copy	15	Mar 90	Onboard
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABB-3 MK 13 MOD 0 Catapult IPB	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABC-2 Maintenance and Overhaul Instructions, Catapults, Type C MK 13, and MK 13-1	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABC-4 Forward ICCS Operation and Maintenance with IPB	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABC-5 Deck Edge ICCS Operation and Maintenance with IPB	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABD-2 CVN 68-73 Catapult Operating Instruction	Hard copy	15	Mar 90	Onboard
NAVAIR 51-15ABD-3 IPB for Type C MK 13-1 Catapult	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABE-1 CSV Operation, Maintenance, and Overhaul with IPB	Hard copy	2	Mar 90	Onboard
NAVAIR 51-15ABE-2 Digital Endspeed Indicator Maintenance	Hard copy	2	Mar 90	Onboard
NAVAIR 51-25-19 MK 2 Nose Gear Launch Operations, Maintenance, and Overhaul with IPB	Hard copy	2	Mar 90	Onboard
NAVAIR 51-50ABA-2 Visual Landing Aids on Aircraft Carriers	Hard copy	2	Mar 90	Onboard
NAVAIR 51-5BBA-1.1 MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	2	Mar 90	Onboard

IV.B.3. TECHNICAL MANUALS

NAVAIR 51-5BBA-1.2 MK 7 MOD 2 Arresting Gear IPB	Hard copy	2	Mar 90	Onboard
NAVAIR 51-5BCA-1.1 MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	2	Mar 90	Onboard
NAVAIR 51-5BCA-1.2 MK 7 MOD 3 Arresting Gear IPB	Hard copy	2	Mar 90	Onboard
NAVAIR 51-70-3 Deflector, Jet Blast, MK 7 MOD 0/ 1/ 2, O/I Maintenance with IPB	Hard copy	2	Mar 90	Onboard

CIN, COURSE TITLE: C-604-2014, Aircraft Launch and Recovery Equipment C 13 Catapult Class C1
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 00-25-100 Technical Publications Library Management	Hard copy	1	Mar 90	Onboard
NAVAIR 51-15ABB-4.1/ 4.2/ 4.3 Steam Catapult OMI with IPB	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABB-3 MK 13 MOD 0 Catapult IPB	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABC-2 Maintenance and Overhaul Instructions, Catapults, Type C MK 13, and MK 13-1	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABD-2 CVN 68-73 Catapult Operating Instruction	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABD-3 IPB for Type C MK 13-1 Catapult	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABE-1 CSV Operation, Maintenance, and Overhaul with IPB	Hard copy	5	Mar 90	Onboard
NAVAIR 51-5-32 Corrosion Control Handbook for Shipboard Launch and Recovery Systems	Hard copy	1	Mar 90	Onboard

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-604-2028, Aircraft Launch And Recovery Equipment Maintenance Technician
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 00-25-100 Technical Publications Library Management	Hard copy	1	Mar 90	Onboard
NAVAIR 51-15ABB-4.1/ 4.2/ 4.3 Steam Catapult OMI with IPB	Hard copy	1	Mar 90	Onboard
NAVAIR 51-15ABC-2 Maintenance and Overhaul Instructions, Catapults, Type C MK 13, and MK 13-1	Hard copy	1	Mar 90	Onboard
NAVAIR 51-15ABD-3 IPB for Type C MK 13-1 Catapult	Hard copy	1	Mar 90	Onboard
NAVAIR 51-5-32 Corrosion Control Handbook for Shipboard Launch and Recovery Systems	Hard copy	1	Mar 90	Onboard
NAVAIR 51-5BBA-1.1 Arresting Gear, MK 7 MOD 2 OPS and Maintenance	Hard copy	1	Mar 90	Onboard
NAVAIR 51-5BBA-1.2 Arresting Gear MK 7 MOD 2 IPB	Hard copy	1	Mar 90	Onboard
NAVAIR 51-5BCA-1.2 MK 7 MOD 3 Arresting Gear IPB	Hard copy	1	Mar 90	Onboard

CIN, COURSE TITLE: C-604-2029, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 00-80T-105 Aircraft Carrier NATOPS Manual	Hard copy	1	Mar 90	Onboard
NAVAIR 51-5-32 Corrosion Control Handbook for Shipboard Launch and Recovery Systems	Hard copy	1	Mar 90	Onboard
NAVAIR 51-5BBA-1.1 MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	5	Mar 90	Onboard

IV.B.3. TECHNICAL MANUALS

NAVAIR 51-5BBA-1.2 Arresting Gear MK 7 MOD 2 IPB	Hard copy	5	Mar 90	Onboard
NAVAIR 51-5BCA-1.1 MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	5	Mar 90	Onboard
NAVAIR 51-5BCA-1.2 MK 7 MOD 3 Arresting Gear IPB	Hard copy	5	Mar 90	Onboard

CIN, COURSE TITLE: C-604-2011, Aircraft Launch and Recovery Equipment Maintenance Officer
TRAINING ACTIVITY: NATTC DET Lakehurst
LOCATION, UIC: Naval Air Engineering Station Lakehurst, 63094

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 00-25-100 Technical Publications Library Management	Hard copy	1	Mar 90	Onboard
NAVAIR 00-80R-14-1 NATOPS Aircraft Emergency Rescue Information Manual	Hard copy	1	Mar 90	Onboard
NAVAIR 51-15ABB-4.1/ 4.2/ 4.3 Steam Catapult OMI with IPB	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABC-2 Maintenance and Overhaul Instructions, Catapults, Type C MK 13, and MK 13-1	Hard copy	5	Mar 90	Onboard
NAVAIR 51-15ABD-3 IPB for Type C MK 13-1 Catapult	Hard copy	5	Mar 90	Onboard
NAVAIR 51-25-501 Catapult Vickers Pump Manual	Hard copy	5	Mar 90	Onboard
NAVAIR 51-40-8-1 Low Light Level Television System Operation, Maintenance, and Overhaul Manual with IPB	Hard copy	1	Mar 90	Onboard
NAVAIR 51-40-ACA-2 Manually Operated Visual Landing Aid System Installation, Operation and Maintenance Instruction with IPB	Hard copy	5	Mar 90	Onboard
NAVAIR 51-40ABA-10 Fresnel Lens Optical Landing System MK 6 MOD 3 Installation, Service, Operation and Maintenance Manual VOLI 10.1, VOL II	Hard copy	2	Mar 90	Onboard

IV.B.3. TECHNICAL MANUALS

NAVAIR 51-5-32 Corrosion Control Handbook for Shipboard Launch and Recovery Systems	Hard copy	1	Mar 90	Onboard
NAVAIR 51-50ABA-2 Visual Landing Aids on Aircraft Carriers	Hard copy	2	Mar 90	Onboard
NAVAIR 51-60-8-1 ILARTS Operation, Maintenance, and Overhaul with IPB	Hard copy	1	Mar 90	Onboard
NAVAIR 51-60-9 MK 1 MOD 0 LSO HUD Maintenance and Overhaul Manual with IPB	Hard copy	1	Mar 90	Onboard
NAVAIR 51-70-3 Deflector, Jet Blast, MK 7 MOD 0/1/2, O/I Maintenance with IPB	Hard copy	5	Mar 90	Onboard

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Equipment Refresher
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-15ABB-4.1/4.2/4.3 Steam Catapult O&I Level Maintenance with IPB	Hard copy	20	May 90	Onboard
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	20	May 90	Onboard
NAVAIR 51-15ABB-3 MK 13 MOD 0 Catapult IPB	Hard copy	20	May 90	Onboard

CIN, COURSE TITLE: C-604-2016, Aircraft Launch and Recovery Equipment Refresher
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-15ABB-4.1/4.2/4.3 Steam Catapult OMI with IPB	Hard copy	20	May 90	Onboard
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	20	May 90	Onboard
NAVAIR 51-15ABB-3 MK 13 MOD 0 Catapult IPB	Hard copy	20	May 90	Onboard

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-670-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	5	May 90	Onboard
NAVAIR 51-5BBA-1.1 Arresting Gear, MK 7 MOD 2 OPS and Maintenance	Hard copy	5	May 90	Onboard
NAVAIR 51-5BCA-1.1 MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	1	May 90	Onboard
NAVAIR 51-70-3 Deflector, Jet Blast, MK 7 MOD 0/1/2, Operation, Maintenance with IPB	Hard copy	5	May 90	Onboard

CIN, COURSE TITLE: C-670-2017, Aircraft Launch and Recovery Equipment Quality Assurance Administration
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	5	May 90	Onboard
NAVAIR 51-5BBA-1.1 MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	5	May 90	Onboard
NAVAIR 51-5BCA-1.1 MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	1	May 90	Onboard
NAVAIR 51-70-3 Deflector, Jet Blast, MK 7 MOD 0, Operation, Maintenance, and Overhaul with IPB	Hard copy	5	May 90	Onboard

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	20	May 90	Onboard
NAVAIR 51-15ABB-3 MK 13 MOD 0 Catapult IPB	Hard copy	20	May 90	Onboard

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-604-2024, Aircraft Launch and Recovery Equipment - Catapult Basic
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-15ABB-2 MK 13 MOD 0 Catapult Maintenance and Overhaul	Hard copy	20	May 90	Onboard
NAVAIR 51-15ABB-3 MK 13 MOD 0 Catapult IPB	Hard copy	20	May 90	Onboard

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NAMTRAU Norfolk
LOCATION, UIC: NAS Norfolk, 46680

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-5BBA-1.1 MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	5	May 90	Onboard
NAVAIR 51-5BBA-1.2 MK 7 MOD 2 Arresting Gear IPB	Hard copy	1	May 90	Onboard
NAVAIR 51-5BCA-1.1 MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	5	May 90	Onboard
NAVAIR 51-5BCA-1.2 MK 7 MOD 3 Arresting Gear IPB	Hard copy	5	May 90	Onboard

CIN, COURSE TITLE: C-604-2025, Aircraft Launch and Recovery Equipment Arresting Gear
TRAINING ACTIVITY: NAMTRAU North Island
LOCATION, UIC: NAS North Island, 39476

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
NAVAIR 51-5BBA-1.1 MK 7 MOD 2 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	5	May 90	Onboard
NAVAIR 51-5BBA-1.2 MK 7 MOD 2 Arresting Gear IPB	Hard copy	1	May 90	Onboard
NAVAIR 51-5BCA-1.1 MK 7 MOD 3 Arresting Gear Operation, Maintenance, and Overhaul	Hard copy	5	May 90	Onboard
NAVAIR 51-5BCA-1.2 MK 7 MOD 3 Arresting Gear IPB	Hard copy	5	May 90	Onboard

PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
PDA	Began Installation of Arresting Gear Service Change 427	FY00	Completed
PDA	Began Installation of Arresting Gear Service Change 428	FY00	Completed
PDA	Held ALRE Integrated Logistics Support Management Team Meeting	Apr 01	Completed
TSA	Developed Draft CV/CVN ALRE NTSP	Oct 01	Completed
TSA	Developed Proposed CV/CVN ALRE NTSP	Jun 02	Completed
PDA	Award Arresting Gear Service Change 437 Production Contract	FY02	Pending
PDA	Conduct Test and Evaluation of Arresting Gear Service Change 437	FY02	Pending
PDA	Begin Installation of Arresting Gear Service Change 437	FY02	Pending
PDA	Complete Installation of Arresting Gear Service Change 428	Jun 03	Pending
PDA	Conduct ALRE Sea Trials Aboard USS Ronald Reagan	FY03	Pending
PDA	Complete Installation of Arresting Gear Service Change 427	Jun 04	Pending

PART VI - DECISION ITEMS/ACTION REQUIRED

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS
No Decision Items or Actions Pending			

PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
CAPT Owen Fletcher Deputy Aviation Maintenance Programs CNO, N781B fletcher.owen@hq.navy.mil	**COMM:** (703) 604-7747 **DSN:** 664-7747 **FAX:** (703) 604-6972
CDR Wanda Janus Resource Sponsor / Program Sponsor CNO, N785D1 janus.wanda@hq.navy.mil	**COMM:** (703) 602-6758 **DSN:** 664-6758 **FAX:** (703) 602-7103
CAPT Terry Merritt Head, Aviation Technical Training Branch CNO, N789H merritt.terry@hq.navy.mil	**COMM:** (703) 604-7730 **DSN:** 664-7730 **FAX:** (703) 604-6939
AZCS Gary Greenlee NTSP Manager CNO, N789H1A greenlee.gary@hq.navy.mil	**COMM:** (703) 604-7709 **DSN:** 664-7709 **FAX:** (703) 604-6939
CDR Kevin Neary Aviation Manpower CNO, N122C1 n122c1@bupers.navy.mil	**COMM:** (703) 695-3247 **DSN:** 225-3247 **FAX:** (703) 614-5308
Mr. Robert Zweibel Training Technology Policy CNO, N795K zweilbel.robert@hq.navy.mil	**COMM:** (703) 602-5151 **DSN:** 332-5151 **FAX:** (703) 602-5175
Ms. Franceen George Program Team Leader NAVAIR, PMA251 georgefp@navair.navy.mil	**COMM:** (301) 757-6822 **DSN:** 757-6822 **FAX:** (301) 757-6800
Ms. Fritzi Hart Training Systems Manager NAVAIR, PMA2053A hart.fj@navair.navy.mil	**COMM:** (301) 757-8131 **DSN:** 757-8131 **FAX:** (301) 757-6941
Mr. Victor Brown Assistant Program Manager, Logistics NAVAIR, AIR 3.1.4C brownvl@navair.navy.mil	**COMM:** (301) 757-6814 **DSN:** 757-6814 **FAX:** (301) 757-6800
Mr. Bob Long Deputy Director for Training CINCPACFLT, N70 longrh@cpf.navy.mil	**COMM:** (808) 471-8513 **DSN:** 471-8513 **FAX:** (808) 471-8596

PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
Mr. Chon Quevedo Technical training Administrator COMNAVAIRPAC, N422FO quevedo.chon.a@cnap.navy.mil	**COMM:** (619) 545-5517 **DSN:** 735-5517 **FAX:** (619) 545-1483
CAPT Patricia Huiatt Deputy Assistant, Chief of Naval Personnel for Distribution NAVPERSCOM, PERS-4B p4b@persnet.navy.mil	**COMM:** (901) 874-3529 **DSN:** 882-3529 **FAX:** (901) 874-2606
CDR Timothy Ferree Branch Head, Aviation Enlisted Assignments NAVPERSCOM, PERS-404 p404@persnet.navy.mil	**COMM:** (901) 874-3691 **DSN:** 882-3691 **FAX:** (901) 874-2642
LCDR Gordon Lawry Aviation Department Head NAVMAC, 30 raymond.lawry@navmac.navy.mil	**COMM:** (901) 874-6218 **DSN:** 882-6218 **FAX:** (901) 874-6471
AKC Tina Jacobs NTSP Coordinator NAVMAC, 32 Parthina.jacobs@navmac.navy.mil	**COMM:** (901) 874-6483 **DSN:** 882-6483 **FAX:** (901) 874-6471
CAPT Grant Ziebell CNET NTSP Coordination CNET, ETS3 capt-grant.ziebell@cnet.navy.mil	**COMM:** (850) 452-4330 **DSN:** 922-4330 **FAX:** (850) 452-4853
CDR Erich Blunt Aviation Technical Training CNET, ETE-32 cdr-erich.blunt@cnet.navy.mil	**COMM:** (850) 452-4915 **DSN:** 922-4915 **FAX:** (850) 452-4901
AVCM Thomas King Training Coordinator NAMTRAGRU HQ, N2213 avcm-thomas.e.king@smtp.cnet.navy.mil	**COMM:** (850) 452-9712 ext. 249 **DSN:** 922-9712 ext. 249 **FAX:** (850) 452-9965
ABFCS John Coontz Curricula Manager NAMTRAU Norfolk, 3040 abfcs-john.coontz@cnet.navy.mil	**COMM:** (757) 444-3527 **DSN:** 564-3527 **FAX:** (757) 565-3527
AVCM Steven Sanders PQS Development Group LCPO NETPDTC, N741 steven.sanders@cnet.navy.mil	**COMM:** (850) 452-1001 ext. 2246 **DSN:** 922-1001 ext. 2246 **FAX:** (850) 452-1764

PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
LTJG Alan Chuderski ALRE Training Officer NATTC Detachment Lakehurst, achuderski@aol.com	**COMM:** (732) 323-1038 **DSN:** 642-1038 **FAX:** (732) 323-5334
Ms. Paula Parsons Logistics Coordinator NAWCADLKE, 3.1.4.1 parsonspl@navair.navy.mil	**COMM:** (732) 323-1861 **DSN:** 624-1861 **FAX:** (732) 323-7402
Mr. Lonnie Snyder Catapult Logistics Manager NAWCADLKE, 3.1.4.1 snyderl@navair.navy.mil	**COMM:** (732) 323-1840 **DSN:** 624-1840 **FAX:** (732) 323-7232
Mr. Joseph Wenger Arresting Gear Logistics Manager NAWCADLKE, 3.1.4.1 wengerj@navair.navy.mil	**COMM:** (732) 323-1831 **DSN:** 624-1831 **FAX:** (732) 323-7402
Ms. Teri Kostbar ALRE Training Manager NAWCADLKE, 3.4.5 kostbart@navair.navy.mil	**COMM:** (732) 323-1841 **DSN:** 642-1841 **FAX:** (732) 323-7402
Mr. Armando Machado Arresting Gear Training Manager NAWCADLKE, 3.4.5 machadoaj@navair.navy.mil	**COMM:** (732) 323-7191 **DSN:** 624-7191 **FAX:** (732) 323-7402
Mr. Paul Plasterer Catapult Project Leader NAWCADLKE, 4.8.10.1 plastererpk@navair.navy.mil	**COMM:** (732) 323-1165 **DSN:** 624-1165 **FAX:** (732) 323-1588
Mr. Robert Smith Catapult Controls Team Leader NAWCADLKE, 4.8.10.1 smithrj4@navair.navy.mil	**COMM:** (732) 323-7385 **DSN:** 624-7385 **FAX:** (732) 323-7232
Mr. Rich Kotelnick Arresting Gear In-Service Team Leader NAWCADLKE, 4.8.10.2 kotelnickra@navair.navy.mil	**COMM:** (732) 323-1582 **DSN:** 624-1582 **FAX:** (732) 323-7232
Mr. Phil Szczyglowski Competency Manager NAVAIR, AIR 3.4.1 szczyglowspr@navair.navy.mil	**COMM:** (301) 757-8280 **DSN:** 757-8280 **FAX:** (301) 342-7737

PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
Mr. Bob Kresge NTSP Manager NAVAIR, AIR 3.4.1 kresgerj@navair.navy.mil	**COMM:** (301) 757-1844 **DSN:** 757-1844 **FAX:** (301) 342-7737
ADCS Steve Reed NTSP Coordinator NAVAIR, AIR 3.4.1 reedps@navair.navy.mil	**COMM:** (301) 757-3107 **DSN:** 757-3107 **FAX:** (301) 342-7737
AMC James Sirigos Manpower, Personnel and Training Analyst NAVAIR, AIR 3.4.1 sirigosjg@navair.navy.mil	**COMM:** (301) 757-3089 **DSN:** 757-3089 **FAX:** (301) 342-7737

SUMMARY OF COMMENTS

ON THE

NAVY TRAINING SYSTEM PLAN

FOR THE

CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT

OF APRIL 2002

N88-NTSP-A-50-8509/P

Prepared by: AMC James Sirigos, AIR-3.4.1
Contact at: (301) 757-3089
Date submitted: May 2002

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

TABLE OF CONTENTS

***ACTIVITIES PROVIDING COMMENTS*:**

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

ACTIVITY NAME: Commander, Naval Air Force, U.S. Pacific Fleet (N422F0)

COMMENT: Page I-6, Figure I-1: ALRE Typical Flight Deck Locations

Flight deck bow C13 Catapults are mislabeled and the MK7 Arresting Gear Barricade is marked incorrectly in the diagram.

INCORPORATED: YES

REMARKS: Relabeled the Flight Deck C13 Catapults and correctly marked and positioned the MK7 Arresting Gear Barricade.

COMMENT: Page I-7, sub-paragraphs G.2 (4), (5), (6), and (7)

The identified sub-paragraphs are incorrect.

INCORPORATED: YES

REMARKS: The sub-paragraphs have been corrected.

COMMENT: Page I-8, C13 Catapult Configuration Matrix, CV-67 USS John F. Kennedy catapult 3 line

Catapult 3 is incorrectly marked.

INCORPORATED: YES

REMARKS: Catapult 3 has been correctly remarked.

COMMENT: Pages I-9 and I-10, Mark 7 Jet Blast Deflector Configuration Matrix

Catapults 1, 2, and 3 Mods for CVN 68 USS Nimitz, CVN 72 USS Abraham Lincoln, and CVN 74 USS John C. Stennis are incorrectly marked.

INCORPORATED: YES

REMARKS: The entries have been corrected.

COMMENT: Page I-13, paragraph 4b, Mark 7 Jet Blast Deflector

The paragraph contains erroneous information.

INCORPORATED: YES

REMARKS: The erroneous information has been deleted from the paragraph.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page I-17, course description

All catapult designations under the course description are incorrect.

INCORPORATED: YES

REMARKS: All catapult designations have been corrected.

COMMENT: Page I-20, CIN C-604-2016 course title

Course title is incorrect.

INCORPORATED: NO

REMARKS: The course title is correct as listed in the OPNAV (Aviation) Training Management System (OATMS).

COMMENT: Page I-20, CIN C-604-2016 course description

Catapult designation is incorrect.

INCORPORATED: YES

REMARKS: Catapult designation has been corrected.

COMMENT: Page I-20, CIN C-604-2016 course length

CIN C-604-2016 course length has been revised.

INCORPORATED: YES

REMARKS: Revised course length has been entered.

COMMENT: Page I-20, CIN C-604-2017

CIN C-604-2017 needs to be changed.

INCORPORATED: YES

REMARKS: Correct course identification number has been entered.

COMMENT: Page I-21, CIN C-604-2017 course description

Missing “IC” rating in the list of ratings this course provides training to.

INCORPORATED: NO

REMARKS: The subject matter expert at NAVAIR (NAWCADLKE 3.4.5) is researching the applicability of including the “IC” rating to the list of ratings this course provides training to.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page I-21, CIN C-604-2024 course length

Course length has been modified.

INCORPORATED: YES

REMARKS: Revised course length has been entered.

COMMENT: Page I-22, Student Profiles: Skill Identifier and Prerequisite Skill and Knowledge Requirements Table

The table is missing data concerning the IC rating.

INCORPORATED: NO

REMARKS: This issue is being researched by the subject matter expert at NAVAIR (NAWCADLKE 3.4.5).

COMMENT: Page I-23, paragraph I.2

The NAVEDTRA number in the table concerning Flight Deck Familiarization is incorrect.

INCORPORATED: YES

REMARKS: Correct NAVEDTRA number has been entered.

COMMENT: Page I-26, paragraph M, table

Mark 13 Catapult entry is incorrect

INCORPORATED: YES

REMARKS: The entry has been corrected.

COMMENT: Page I-27, paragraph M, table

Mark Mod 4 entry is incorrect.

INCORPORATED: YES

REMARKS: The entry has been corrected.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page II-3 through II-19, element II.A.1.b

Missing IC rating information for all ships.

INCORPORATED: NO

REMARKS: This issue is being researched by the subject matter expert at NAVAIR (NAWCADLKE 3.4.5).

COMMENT: Page II-10

Page is blank and has no comment letting the reader know that the page is intentionally blank.

INCORPORATED: NO

REMARKS: Page II-10 is not blank. Page II-10 in the original document that was being reviewed may have been blank due to a formatting error.

COMMENT: Page II-10, element II.A.1.b

Missing FASOTRAGRUPAC San Diego in list of billets required for Operational and Fleet Support activities.

INCORPORATED: YES

REMARKS: FASOTRAGRUPAC San Diego has been added to the list of billets.

COMMENT: Page II-21, tour lengths

Tour Lengths listed under CIN C-604-2016, C-670-2017, and C-604-2024 are incorrect.

INCORPORATED: YES

REMARKS: Tour lengths have been corrected.

COMMENT: Page II-22, tour length

Tour Length for CIN C-604-2025 is incorrect.

INCORPORATED: YES

REMARKS: Correct tour length has been entered.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page III-4, element III.A.2.a

CIN C-604-2017 is incorrect entry for Aircraft Launch and Recovery Equipment Quality Assurance Administration course.

INCORPORATED: YES

REMARKS: Correct course identification number has been entered.

COMMENT: Page IV-2, TTE item number 004

C-13 Catapult MOD1 is worded incorrectly.

INCORPORATED: YES

REMARKS: C-13 Catapult MOD1 entry has been correctly reworded.

COMMENT: Page IV-2, TTE item number 037

JDB is incorrect.

INCORPORATED: YES

REMARKS: Corrected JDB entry.

COMMENT: Page IV-3, TTE item number 009

TTE item number 009, Scale Assembly Knot Indicator Ruler is not applicable.

INCORPORATED: YES

REMARKS: TTE item number 009 has been removed from the list.

COMMENT: Page IV-3, TTE item number 011

Strock Timer Clock is incorrect.

INCORPORATED: YES

REMARKS: Corrected Strock Timer Clock entry.

COMMENT: Page IV-4, TTE item number 026

TTE item number 026, CV 63-65 Maintenance Control Console is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 026 entry has been entered.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-4, TTE item number 031

TTE item number 031, Water Break Cylinder is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 031 entry has been entered.

COMMENT: Page IV-4, TTE item number 032

TTE item number 032, Capacity Selection Valve is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 032 entry has been entered.

COMMENT: Page IV-4, TTE item number 037

TTE item number 037, MK 7 MOD 0 Auxiliary JDB Control Box is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 037 entry has been entered.

COMMENT: Page IV-4, TTE item number 038

TTE item number 038, Sealing Display Strip is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 038 entry has been entered.

COMMENT: Page IV-4, TTE item number 040

TTE item number 040, Catapult Launch Cylinder 9 inch is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 040 entry has been entered.

COMMENT: Page IV-4, CIN C-604-2028, TTE item number 032

TTE item number 032, Capacity Selection Valve is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 032 entry has been entered.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-6, TTE item number 336

TTE item number 336, Sheque Grove Gage is incorrectly spelled.

INCORPORATED: YES

REMARKS: Correct TTE item number 336 entry has been entered.

COMMENT: Page IV-8, TTE item number 043

TTE item number 043, the word Road is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 043 entry has been entered.

COMMENT: Page IV-8, TTE item numbers 053, 054, and 059

For TTE item numbers 053, 054, and 059 the word Retractable is incorrect.

INCORPORATED: YES

REMARKS: Correct TTE item number 053, 054 and 059 entries have been entered.

COMMENT: Page IV-16, technical manual number/title NAVAIR 51-15ABB-1

Technical manual NAVAIR 51-15ABB-1 is numbered and worded incorrectly.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-15ABB-1 has been renumbered and reworded correctly.

COMMENT: Page IV-16, technical manuals NAVAIR 51-15ABB-2 through NAVAIR 51-15ABC-3

Technical manuals NAVAIR 51-15ABB-2 through NAVAIR 51-15ABC-3 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-16, technical manual NAVAIR 51-15ABD-1

Technical manual NAVAIR 51-15ABD-1 is no longer used in this course.

INCORPORATED: YES

REMARKS: NAVAIR 51-15ABD-1 has been deleted.

COMMENT: Page IV-17, technical manual NAVAIR 51-25-19

Technical manual number NAVAIR 51-25-19 is no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-17, technical manual NAVAIR 51-70-3 title

Technical manual NAVAIR 51-70-1 title is incorrectly worded.

INCORPORATED: YES

REMARKS: Correct wording of technical manual NAVAIR 51-70-1 has been entered.

COMMENT: Page IV-17, technical manual NAVAIR 51-5-27

Technical manual number NAVAIR 51-5-27 is no longer used in this course.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-5-27 entry has been deleted.

COMMENT: Page IV-17, technical manuals NAVAIR 51-15AAA-1 through NAVAIR 51-15AAA-3

Technical manuals NAVAIR 51-15AAA-1 through NAVAIR 51-15AAA-3 are no longer used in this course.

INCORPORATED: YES

REMARKS: Technical manuals NAVAIR 51-15AAA-1 through NAVAIR 51-15AAA-3 entries have been deleted.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-17, technical manual NAVAIR 51-15ABB-1 title

Technical manual NAVAIR 51-15ABB-1 title is incorrectly worded.

INCORPORATED: YES

REMARKS: Correct technical manual NAVAIR 51-15ABB-1 title has been entered.

COMMENT: Page IV-17, technical manuals NAVAIR 51-15ABB-2 through NAVAIR 51-15ABD-1 for CIN C-604-2014

Technical manuals NAVAIR 51-15ABB-2 through NAVAIR 51-15ABD-1 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-18, technical manual NAVAIR 51-5-32

Technical manual NAVAIR 51-5-32 is no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-18, technical manual NAVAIR 51-15ABB-2 title listed under CIN C-604-2028

Technical manual NAVAIR 51-15ABB-2 title is incorrectly worded.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-15ABB-2 has been correctly reworded.

COMMENT: Page IV-18, technical manual NAVAIR 51-15ABC-1

Technical manual number NAVAIR 51-15ABC-1is no longer used in this course.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-15ABC-1 entry has been deleted.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-18, technical manuals NAVAIR 51-15ABC-2 through NAVAIR 51-5-32 for CIN C-604-2028

Technical manuals NAVAIR 51-15ABC-2 through NAVAIR 51-5-32 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-18, technical manual NAVAIR 51-5BBA-1.1 listed under CIN C-604-2028

Technical manual number/title data NAVAIR 51-5BBA-1.1 is incorrectly worded and numbered.

INCORPORATED: YES

REMARKS: Technical manual number and title have been corrected.

COMMENT: Page IV-18, technical manuals NAVAIR 51-5BAA-1.2 and NAVAIR 51-5BCA-1.2 for CIN C-604-2028

Technical manuals NAVAIR 51-5BAA-1.2 and NAVAIR 51-5BCA-1.2 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-18, technical manuals NAVAIR 51-5-32 and NAVAIR 51-5BBA-1.1 for CIN C-604-2029

Technical manuals NAVAIR 51-5-32 and NAVAIR 51-5BBA-1.1 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-19, technical manual NAVAIR 51-5BBA-1.2 listed under CIN C-604-2029

Technical manual NAVAIR 51-5BBA-1.2 is numbered and worded incorrectly.

INCORPORATED: NO

REMARKS: Entry reflects inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-19, CIN C-604-2029

Page IV-19 is missing Technical Manual Number/Title data: NAVAIR 00-80T-120/CV/CVN Flight/Hanger Deck NATOPS Manual.

INCORPORATED: NO

REMARKS: In accordance with inputs received from the subject matter expert at NATTC Detachment Lakehurst, and the ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001, NAVAIR 00-80T-120 is not a required publication.

COMMENT: Page IV-19, technical manuals NAVAIR 51-5BCA-1.1 and NAVAIR 51-5BCA-1.2

Technical manuals NAVAIR 51-5BCA-1.1 and NAVAIR 51-5BCA-1.2 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-19, technical manuals NAVAIR 51-15AAA-1 through NAVAIR 51-15AAA-3

Technical manuals NAVAIR 51-15AAA-1 through NAVAIR 51-15AAA-3 are no longer used in this course.

INCORPORATED: YES

REMARKS: Technical manuals NAVAIR 51-15AAA-1 through NAVAIR 51-15AAA-3 have been deleted.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-19, technical manual NAVAIR 51-15ABB-1

Technical manual NAVAIR 51-15ABB-1 is numbered and worded incorrectly.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-15ABB-1 has been renumbered and reworded correctly.

COMMENT: Page IV-19, technical manuals NAVAIR 51-15ABB-2 through NAVAIR 51-15ABC-3

Technical manuals NAVAIR 51-15ABB-2 through NAVAIR 51-15ABC-3 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NATTC Detachment Lakehurst and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-19, technical manual NAVAIR 51-15ABD-1

Technical manual number NAVAIR 51-15ABD-1is no longer used in this course.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-15ABD-1 has been deleted.

COMMENT: Page IV-19, technical manual NAVAIR 51-40ABA-10

The title of technical manual NAVAIR 51-40ABA-10 is worded incorrectly.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-40ABA-10 has been reworded correctly.

COMMENT: Page IV-21, technical manual NAVAIR 51-70-3

The title of technical manual NAVAIR 51-70-3 is worded incorrectly.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-70-3 has been reworded correctly.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-20, technical manual NAVAIR 51-70-5

Technical manual NAVAIR 51-70-5 is no longer used in this course.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-70-5 has been deleted.

COMMENT: Page IV-20, technical manual NAVAIR 51-15ABB-1

Technical manual NAVAIR 51-15ABB-1 is numbered and worded incorrectly.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-15ABB-1 has been renumbered and reworded correctly.

COMMENT: Page IV-20, technical manuals NAVAIR 51-15ABB-1 through NAVAIR 51-15ABB-3

Technical manuals NAVAIR 51-15ABB-2 and NAVAIR 51-15ABB-3 for CIN C-604-2016, and NAVAIR 51-15ABB-1 through NAVAIR 51-15ABB-3 for CIN C-604-2016 are no longer used in these courses.

INCORPORATED: YES

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NAMTRAU NORFOLK and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-21, technical manual NAVAIR 51-15ABB-2

Technical manual NAVAIR 51-15ABB-2 for CIN C-604-2017 is numbered and worded incorrectly.

INCORPORATED: YES

REMARKS: CIN number has been corrected from C-604-2017 to C-670-2017. NAVAIR 51-15ABB-2 for CIN number C-670-2017 is numbered and worded correctly.

COMMENT: Page IV-21, technical manual NAVAIR 51-5BBA-1.1

Technical manual NAVAIR 51-5BBA-1.1 for CIN C-670-2017 is numbered and worded incorrectly.

INCORPORATED: YES

REMARKS: CIN number has been corrected from C-604-2017 to C-670-2017. NAVAIR 51-5BBA-1.1 for CIN number C-670-2017 is numbered and worded correctly.

COMMENTS / RECOMMENDATIONS ON THE
CV/CVN AIRCRAFT LAUNCH AND RECOVERY EQUIPMENT
PROPOSED NAVY TRAINING SYSTEM PLAN

COMMENT: Page IV-21, technical manual NAVAIR 51-70-3

Technical manual NAVAIR 51-70-3 for CIN C-604-2017 worded incorrectly.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-70-3 for CIN C-670-2017 has been reworded correctly.

COMMENT: Page IV-21, technical manuals NAVAIR 51-15ABB-1 through NAVAIR 51-15ABB-3 for CIN C-604-2024

Technical manuals NAVAIR 51-15ABB-1 through NAVAIR 51-15ABB-3 are no longer used in this course.

INCORPORATED: NO

REMARKS: Entries have been updated to reflect inputs received from subject matter experts at NAMTRAU NORFOLK and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.

COMMENT: Page IV-21, technical manual NAVAIR 51-15ABB-1 for CIN C-604-2024

Technical manual NAVAIR 51-15ABB-1 is no longer used in this course.

INCORPORATED: YES

REMARKS: Technical manual NAVAIR 51-15ABB-1 has been deleted.

COMMENT: Page IV-21, technical manual NAVAIR 51-15ABB-2 for CIN C-604-2024

Technical manual NAVAIR 51-15ABB-2 is no longer used in this course.

INCORPORATED: NO

REMARKS: Entry reflects inputs received from subject matter experts at NAMTRAU NORFOLK and ALRE Technical Manuals listed in OPNAVINST 4790.15D dated 01 March 2001.